

Self-Teaching Arithmetic

Third Book



Third Book

Self-Teaching Arithmetic

Self-Study

Self-Test

Self-Check

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How to Use This Book

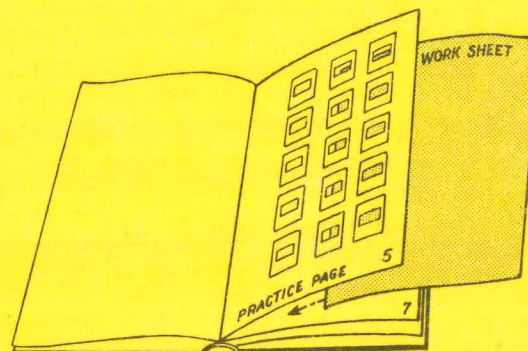
This is a new kind of book designed to enable a child to learn at his own rate of speed. With it he can study the basic arithmetical processes, test his knowledge of them, and correct his test all by himself. The child will, of course, need guidance in the beginning, until he has learned the mechanics of the book. Once he understands how to work with the book, however, he will find it easy to use — and fun to use too.

The book includes 34 pairs of pages. One page in each pair — the Practice Page — contains 16 to 60 examples with apertures (“windows”) adjacent to them. The answers for the examples show through the windows. On the Study Pages facing the Practice Pages are illustrations to help the child visualize the appropriate arithmetical processes. (You will find it helpful to turn to the pages cited as you read these directions.)

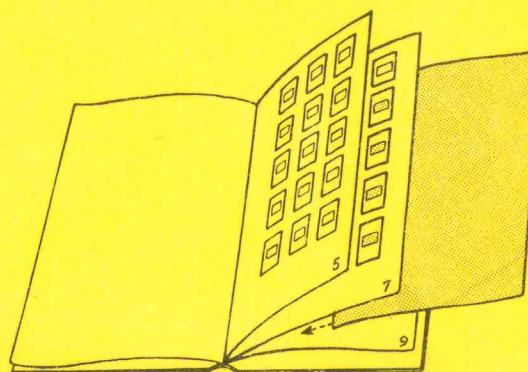
This is how the child uses the Knowledge Master Book:

- 1) The Study Page in each lesson teaches him to understand the new processes introduced on the opposite Practice Page.
- 2) He studies the examples and their answers until he thinks he knows the answers to all of the examples on the Practice Page.
- 3) He tests himself. He puts his work sheet (a piece of paper or a Magic Slate) directly under the Practice Page. If he has been studying the examples on page 5, for instance, he puts his work sheet under page 5 — that is, between pages 6 and 7 and on top of page 7. The answers will then be hidden. If the paper he uses is not opaque enough to hide the answers, he should use more than one sheet. He writes the answers through the windows where indicated.
- 4) He checks his work. When he has written the answers to the examples on page 5, he puts the work sheet under page 7, on top of page 9. Both his answers and the correct answers will show through the windows adjacent to the examples. He checks to see where he is making mistakes. He repeats this process until he answers correctly all of the examples on the Practice Page. Then he goes on to the next lesson.

On each of the Practice Pages you will find directions telling where the child should put his work sheet each time. A good rule for the child to remember is that when he is testing himself, he will always put his work sheet under the Practice Page.



When he is checking his answers, he will always put his work sheet under the leaf below the Practice Page.

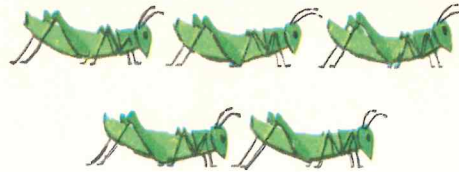


ADDITION EQUATIONS

This page is for study only.

A

In Addition, the numbers we add together are called **addends**.
The answer is called the **sum**.
+ is the **plus sign**; it means **add**.



$$\begin{array}{r} 3 \text{ addend} \\ + 2 \text{ addend} \\ \hline 5 \text{ sum} \end{array}$$

B

This is the **equals sign**: **=**
Any example with an equals sign in it, such as $2 + 1 = 3$, is called an **equation**.

If the **order** of the addends is changed, the sum will still be the same:



$$\begin{array}{l} 3 + 2 = 5 \\ 2 + 3 = 5 \end{array}$$

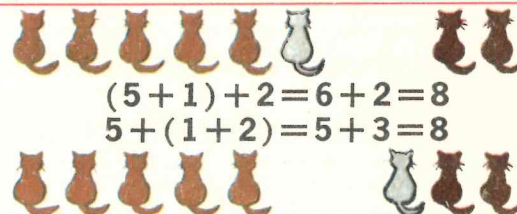


The sum is the same both times.

C

D

We sometimes group addends in a number sentence by using marks called **parentheses**: **()**. First find the sum in the parentheses; then add the other number.



E

Have you ever seen signs (called **symbols**) such as \square , \triangle , \diamond , n , x , etc. in a number sentence? They all mean "What is the missing number?" This book uses a **screen** (\square) to show that there is a missing number.

$8 + 1 = \square$ means "8 + 1 = what number?"

$8 + \square = 9$ means "8 + what number = 9?" $\square + 1 = 9$ means "What number + 1 = 9?"

F

Study this example

$$\begin{array}{l} 4 + 2 = \square \\ 2 + (3 + 1) = \square \end{array}$$

Step 1

Think: $4 + 2 = 6$



Step 2

Find the sum in the parentheses first: $(3 + 1) = 4$
Now add the other number: $2 + 4 = 6$

Notice that both equations have the same sum. **On the Practice Pages in this book, when both equations have the same sum, you need only write the answer once.**

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point.

(Both equations in each pair have the same answer, so you need only write it once.)

3 — To check your work, put your paper or Magic Slate under page 7. See if your answers are the same as the red numerals in the windows.

$$\begin{array}{l} 3+4=\square \\ 4+3=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 5+3=\square \\ 3+5=\square \end{array}$$

$$\begin{array}{l} 2+6=\square \\ 6+2=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 3+3=\square \\ (2+1)+3=\square \end{array}$$

$$\begin{array}{l} 4+4=\square \\ (2+2)+4=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 2+2=\square \\ 2+(1+1)=\square \end{array}$$

$$\begin{array}{l} 4+1=\square \\ 1+4=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 3+2=\square \\ 2+3=\square \end{array}$$

$$\begin{array}{l} 2+5=\square \\ 5+2=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 6+3=\square \\ 3+6=\square \end{array}$$

$$\begin{array}{l} 3+5=\square \\ 5+3=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 5+2=\square \\ 2+5=\square \end{array}$$

$$\begin{array}{l} 6+1=\square \\ 1+6=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 2+4=\square \\ 4+2=\square \end{array}$$

$$\begin{array}{l} 4+5=\square \\ 5+4=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 1+4=\square \\ 4+1=\square \end{array}$$

$$\begin{array}{l} 7+2=\square \\ 2+7=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 7+1=\square \\ 1+7=\square \end{array}$$

$$\begin{array}{l} 2+3=\square \\ 3+2=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 5+4=\square \\ 4+5=\square \end{array}$$

$$\begin{array}{l} 8+1=\square \\ 1+8=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 1+5=\square \\ 5+1=\square \end{array}$$

$$\begin{array}{l} 1+3=\square \\ 3+1=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 2+7=\square \\ 7+2=\square \end{array}$$

$$\begin{array}{l} 4+2=\square \\ 2+4=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 3+1=\square \\ 1+3=\square \end{array}$$

$$\begin{array}{l} 3+6=\square \\ 6+3=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 2+1=\square \\ 1+2=\square \end{array}$$

$$\begin{array}{l} 6+2=\square \\ 2+6=\square \\ \hline \end{array}$$

$$\begin{array}{l} \hline 4+3=\square \\ 3+4=\square \end{array}$$

SUBTRACTION AND ADDITION EQUATIONS RELATED

This page is for study only.

A



The teacher asked Sue to think of a number that is 10 less than 25. Sue thought of the number she wrote on the chalkboard. The 15 Sue wrote is called a **two-digit numeral**.

$$\begin{array}{r} \square \\ 87 \\ 8 \end{array}$$

$$\begin{array}{r} \square \\ 68 \\ 7 \end{array}$$

$$\begin{array}{r} \square \\ 48 \\ 5 \end{array}$$

B

We "think" a **number**. **Written number names**, such as 7 or 18, are called **numerals**. Sue says, "If it is written, I know it is a numeral."

The numerals 0 through 9 are called **digits**. 7 is a **one-digit** numeral. 18 is a **two-digit** numeral, because it is made up of two digits (1,8).

C

$$\begin{array}{r} \square \\ 55 \\ 11 \end{array}$$

$$\begin{array}{r} \square \\ 97 \\ 9 \end{array}$$

$$\begin{array}{r} \square \\ 78 \\ 3 \end{array}$$

D

$$\begin{array}{r} 10 \\ -2 \\ \hline 8 \end{array} \text{ remainder (difference)}$$



There were 10 rabbits eating. 2 went away and 8 remain. We call the answer in subtraction the **remainder**, or the **difference**. — is the **minus sign**; it means **subtract**, or **take away**.

$$\begin{array}{r} \square \\ 67 \\ 5 \end{array}$$

$$\begin{array}{r} \square \\ 59 \\ 13 \end{array}$$

$$\begin{array}{r} \square \\ 89 \\ 4 \end{array}$$

E

We can use subtraction to "undo" addition:



$$6 + 5 = 11$$



$$11 - 5 = 6$$

$$\begin{array}{r} \square \\ 95 \\ 3 \end{array}$$

$$\begin{array}{r} \square \\ 69 \\ 6 \end{array}$$

$$\begin{array}{r} \square \\ 94 \\ 9 \end{array}$$

F

In Panel D, 10 rabbits were eating. 2 went away. How many were left?
 $10 - 2 = \square$

Some rabbits were eating. 2 more came. Then there were 10 rabbits eating. How many were there at first?
 $\square + 2 = 10$

Study this example

$$\begin{array}{r} 10 - 2 = \square \\ \square + 2 = 10 \end{array}$$



The missing numeral is 8.

$$\begin{array}{r} \square \\ 46 \\ 10 \end{array}$$

$$\begin{array}{r} \square \\ 39 \\ 8 \end{array}$$

$$\begin{array}{r} \square \\ 78 \\ 13 \end{array}$$

DIRECTIONS: 1— Study the examples on this page. The blue numerals in the windows are the right answers.

2— Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point.

(Both equations in each pair have the same answer, so you need only write it once.)

3— To check your work, put your paper or Magic Slate under page 9. See if your answers are the same as the blue numerals in the windows.

$$\begin{array}{r} 7-3=\square \\ \square+3=7 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 8-5=\square \\ \square+5=8 \\ \hline \end{array}$$
7
8
$$\begin{array}{r} 8-2=\square \\ \square+2=8 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 6-3=\square \\ \square+3=6 \\ \hline \end{array}$$
8
6
$$\begin{array}{r} 8-4=\square \\ \square+4=8 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 4-2=\square \\ \square+2=4 \\ \hline \end{array}$$
8
4
$$\begin{array}{r} 5-4=\square \\ \square+4=5 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 5-3=\square \\ \square+3=5 \\ \hline \end{array}$$
5
5
$$\begin{array}{r} 7-2=\square \\ \square+2=7 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 9-6=\square \\ \square+6=9 \\ \hline \end{array}$$
7
9
$$\begin{array}{r} 8-3=\square \\ \square+3=8 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 7-5=\square \\ \square+5=7 \\ \hline \end{array}$$
8
7
$$\begin{array}{r} 7-6=\square \\ \square+6=7 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 6-2=\square \\ \square+2=6 \\ \hline \end{array}$$
7
6
$$\begin{array}{r} 9-4=\square \\ \square+4=9 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 7-1=\square \\ \square+1=7 \\ \hline \end{array}$$
9
5
$$\begin{array}{r} 9-7=\square \\ \square+7=9 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 8-7=\square \\ \square+7=8 \\ \hline \end{array}$$
9
8
$$\begin{array}{r} 5-2=\square \\ \square+2=5 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 9-5=\square \\ \square+5=9 \\ \hline \end{array}$$
5
9
$$\begin{array}{r} 9-8=\square \\ \square+8=9 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 6-1=\square \\ \square+1=6 \\ \hline \end{array}$$
9
6
$$\begin{array}{r} 3-1=\square \\ \square+1=3 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 9-2=\square \\ \square+2=9 \\ \hline \end{array}$$
4
9
$$\begin{array}{r} 6-4=\square \\ \square+4=6 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 4-3=\square \\ \square+3=4 \\ \hline \end{array}$$
6
4
$$\begin{array}{r} 9-3=\square \\ \square+3=9 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 3-2=\square \\ \square+2=3 \\ \hline \end{array}$$
9
3
$$\begin{array}{r} 8-6=\square \\ \square+6=8 \\ \hline \end{array}$$

$$\begin{array}{r} \square \\ \hline \end{array}$$

$$\begin{array}{r} 7-4=\square \\ \square+4=7 \\ \hline \end{array}$$
8
7

NOTE: Pay no attention to the red numerals outside the boxes.

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

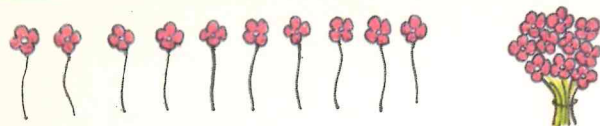
3 — To check your work, put your paper or Magic Slate under page 6. See if your answers are the same as the red numerals in the windows.

<div> <div>34 4</div> <div>53 +34</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 2 = 10$ $10 - 2 = \boxed{}$ </div> </div> </div>	<div> <div>36 14</div> <div>32 +36</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 5 = 12$ $12 - 5 = \boxed{}$ </div> </div> </div>	<div> <div>24 1</div> <div>24 +24</div> <div></div> <div> <div>▲</div> <div> $5 + \boxed{} = 10$ $10 - \boxed{} = 5$ </div> </div> </div>
<div> <div>21 11</div> <div>34 +21</div> <div></div> <div> <div>▲</div> <div> $7 + 4 = \boxed{}$ $\boxed{} - 4 = 7$ </div> </div> </div>	<div> <div>35 2</div> <div>62 +35</div> <div></div> <div> <div>▲</div> <div> $1 + \boxed{} = 10$ $10 - \boxed{} = 1$ </div> </div> </div>	<div> <div>25 9</div> <div>53 +25</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 8 = 11$ $11 - 8 = \boxed{}$ </div> </div> </div>
<div> <div>41 15</div> <div>26 +41</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 6 = 11$ $11 - 6 = \boxed{}$ </div> </div> </div>	<div> <div>65 3</div> <div>14 +45</div> <div></div> <div> <div>▲</div> <div> $4 + 9 = \boxed{}$ $\boxed{} - 9 = 4$ </div> </div> </div>	<div> <div>12 10</div> <div>77 +12</div> <div></div> <div> <div>▲</div> <div> $6 + \boxed{} = 10$ $10 - \boxed{} = 6$ </div> </div> </div>
<div> <div>43 2</div> <div>52 +43</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 9 = 12$ $12 - 9 = \boxed{}$ </div> </div> </div>	<div> <div>51 15</div> <div>18 +51</div> <div></div> <div> <div>▲</div> <div> $6 + \boxed{} = 12$ $12 - \boxed{} = 6$ </div> </div> </div>	<div> <div>72 9</div> <div>21 +73</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 2 = 11$ $11 - 2 = \boxed{}$ </div> </div> </div>
<div> <div>12 6</div> <div>34 +12</div> <div></div> <div> <div>▲</div> <div> $3 + 7 = \boxed{}$ $\boxed{} - 7 = 3$ </div> </div> </div>	<div> <div>16 7</div> <div>23 +16</div> <div></div> <div> <div>▲</div> <div> $\boxed{} + 4 = 12$ $12 - 4 = \boxed{}$ </div> </div> </div>	<div> <div>32 17</div> <div>46 +32</div> <div></div> <div> <div>▲</div> <div> $5 + 8 = \boxed{}$ $\boxed{} - 8 = 5$ </div> </div> </div>

ADDING TWO-DIGIT NUMERALS

This page is for study only. Study the panels below as you look at the examples on page 8.

A



10 ONES = 1 TEN

4
3

6
3

B



17 = 1 TEN and 7 ONES

4
2

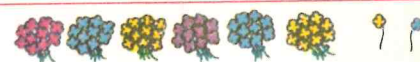
C



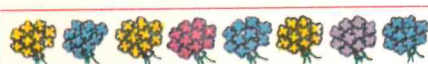
36 = 3 TENS and 6 ONES



23 = 2 TENS and 3 ONES



62 = 6 TENS and 2 ONES



89 = 8 TENS and 9 ONES



96 = 9 TENS and 6 ONES

1
2

5
3

5
2

D



TENS | ONES

$$\begin{array}{r} 36 \\ +23 \\ \hline \end{array} = 30 + 6$$

$$= 20 + 3$$

$$= 50 + 9 = 59$$

Jack is learning how to add two-digit numerals. First he added the ONES. Then he added the TENS.

1
4

5
6

2
1

Then Jack worked the example a shorter way:

E

$$\begin{array}{r} 36 \\ +23 \\ \hline 9 \end{array}$$

Step 1

He added the ONES first:

$$6 + 3 = 9$$

He wrote 9 in ONES place.

Step 2

Then he added the TENS: $3 + 2 = 5$

He wrote 5 in TENS place.

The sum is 59.

$$\begin{array}{r} 36 \\ +23 \\ \hline 59 \end{array}$$

3
4

1
5

2
7

F



Study this example

TENS	ONES
5	4
+ 4	+ 2
9	6

Add the ONES first: $4 + 2 = 6$
Write 6 in ONES place.

Add the TENS next: $5 + 4 = 9$
Write 9 in TENS place.

The sum is 96.

2
1

6
1

2
3

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 8. See if your answers are the same as the blue numerals in the windows.

$$\begin{array}{r} 87 \\ -53 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 7 = 11 \\ 11 - 7 = \boxed{} \end{array}$$

$$\begin{array}{r} 68 \\ -32 \\ \hline \end{array}$$
$$\begin{array}{r} 8 + 6 = \boxed{} \\ \boxed{} - 6 = 8 \end{array}$$

$$\begin{array}{r} 48 \\ -24 \\ \hline \end{array}$$
$$\begin{array}{r} 9 + \boxed{} = 10 \\ 10 - \boxed{} = 9 \end{array}$$

$$\begin{array}{r} 55 \\ -34 \\ \hline \end{array}$$
$$\begin{array}{r} 8 + 3 = \boxed{} \\ \boxed{} - 3 = 8 \end{array}$$

$$\begin{array}{r} 97 \\ -62 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 8 = 10 \\ 10 - 8 = \boxed{} \end{array}$$

$$\begin{array}{r} 78 \\ -53 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 5 = 14 \\ 14 - 5 = \boxed{} \end{array}$$

$$\begin{array}{r} 67 \\ -26 \\ \hline \end{array}$$
$$\begin{array}{r} 6 + 9 = \boxed{} \\ \boxed{} - 9 = 6 \end{array}$$

$$\begin{array}{r} 79 \\ -14 \\ \hline \end{array}$$
$$\begin{array}{r} 7 + \boxed{} = 10 \\ 10 - \boxed{} = 7 \end{array}$$

$$\begin{array}{r} 89 \\ -77 \\ \hline \end{array}$$
$$\begin{array}{r} 4 + 6 = \boxed{} \\ \boxed{} - 6 = 4 \end{array}$$

$$\begin{array}{r} 95 \\ -52 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 9 = 11 \\ 11 - 9 = \boxed{} \end{array}$$

$$\begin{array}{r} 69 \\ -18 \\ \hline \end{array}$$
$$\begin{array}{r} 7 + 8 = \boxed{} \\ \boxed{} - 8 = 7 \end{array}$$

$$\begin{array}{r} 93 \\ -21 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 7 = 16 \\ 16 - 7 = \boxed{} \end{array}$$

$$\begin{array}{r} 46 \\ -34 \\ \hline \end{array}$$
$$\begin{array}{r} \boxed{} + 5 = 11 \\ 11 - 5 = \boxed{} \end{array}$$

$$\begin{array}{r} 39 \\ -23 \\ \hline \end{array}$$
$$\begin{array}{r} 6 + \boxed{} = 13 \\ 13 - \boxed{} = 6 \end{array}$$

$$\begin{array}{r} 78 \\ -46 \\ \hline \end{array}$$
$$\begin{array}{r} 8 + 9 = \boxed{} \\ \boxed{} - 9 = 8 \end{array}$$

SUBTRACTING TWO-DIGIT NUMERALS

This page is for study only. Study the panels below as you look at the examples on page 10.

A

Dick and his sister, Barbara, have 59 marbles. They are going to give 25 of them to Billy. How many marbles will they have left?



B



59 = 5 TENS and 9 ONES



25 = 2 TENS and 5 ONES

TENS	ONES
5	9
-2	5
<hr/>	
3	4

$$59 = 50 + 9$$

$$-25 = 20 + 5$$

$$30 + 4 = 34$$

First subtract the ONES.
Then subtract the TENS.
Panels C and D, below,
will show you a shorter way
to work the example.

C

$$\begin{array}{r} 59 \\ -25 \\ \hline 4 \end{array}$$

Step 1

Subtract the ONES first:
 $9 - 5 = 4$

Write 4 in ONES place.

$$\begin{array}{r} 59 \\ -25 \\ \hline 34 \end{array}$$

Step 2

Then subtract the TENS:
 $5 - 2 = 3$

Write 3 in TENS place.
The remainder is 34.

D

E



One day Dick found 69 nuts.
Barbara found 43. How many more
nuts did Dick find than Barbara?
Panel F shows the answer.

F



69 = 6 TENS and 9 ONES



43 = 4 TENS and 3 ONES

TENS	ONES
6	9
-4	3
<hr/>	
2	6

$$69$$


$$-43$$

$$26$$

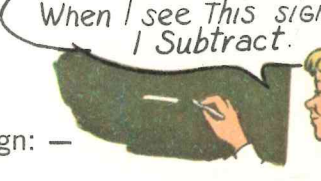
Subtract the ONES first: $9 - 3 = 6$
Write 6 in ONES place.
Then subtract the TENS: $6 - 4 = 2$
Write 2 in TENS place.
The difference is 26.

MIXED ADDITION AND SUBTRACTION OF TWO-DIGIT NUMERALS

A



The signs tell you when to add and when to subtract.
Add when you see the **plus** sign: +
Subtract when you see the **minus** sign: -



B

Addition	
$\begin{array}{r} 24 \\ +63 \\ \hline 87 \end{array}$	Add the ONES first: $4 + 3 = 7$ Write 7 in ONES place. Add the TENS: $2 + 6 = 8$ Write 8 in TENS place. The sum is 87.

C

Subtraction	
$\begin{array}{r} 75 \\ -32 \\ \hline 43 \end{array}$	Subtract the ONES first: $5 - 2 = 3$ Write 3 in ONES place. Subtract the TENS: $7 - 3 = 4$ Write 4 in TENS place. The remainder is 43.

D

Subtraction	
$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> minuend — — — subtrahend — — — difference or remainder </div> <div> { means to be made smaller; to be subtracted from. The word "miniature" may help you to remember the meaning of minuend. { means a number to be subtracted. Therefore, subtrahend. { The "sub" means "under." You know what a submarine is. </div> </div>

E

Thinking to Find Answers	Addition							
	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">(a)</td> <td style="text-align: center;">(b)</td> <td style="text-align: center;">(c)</td> </tr> <tr> <td style="text-align: center;">$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$</td> <td style="text-align: center;">$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$</td> <td style="text-align: center;">$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$</td> </tr> </table>	(a)	(b)	(c)	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$	(a) Knowing the two addends, you must remember the sum is 6 . (b) Think: What number plus 2 = 6? Answer: 4 . Or, $6 - 2 = 4$. If 2 added to 4 = 6, then 2 taken from 6 leaves 4. (c) Think: 4 plus what number = 6? Or, 6 minus what number = 4? Answer: 2 . $6 - 4 = 2$. If 4 added to 2 = 6, then 4 taken from 6 leaves 2.
(a)	(b)	(c)						
$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$	$\begin{array}{r} 4 \\ +2 \\ \hline 6 \end{array}$						

F

Thinking to Find Answers	Subtraction							
	<table border="0" style="width: 100%;"> <tr> <td style="text-align: center;">(d)</td> <td style="text-align: center;">(e)</td> <td style="text-align: center;">(f)</td> </tr> <tr> <td style="text-align: center;">$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$</td> <td style="text-align: center;">$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$</td> <td style="text-align: center;">$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$</td> </tr> </table>	(d)	(e)	(f)	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	(d) Knowing the minuend and the subtrahend, you should know the difference is 4 . (e) Think: 6 minus what number leaves 4? Answer: 2 . Or, 4 plus what number = 6? Answer: 2 . $4 + 2 = 6$. If 2 taken from 6 = 4, then 4 + 2 = 6. (f) Think: What number minus 2 = 4? Answer: 6 . Or think $4 + 2 = 6$. If 2 taken away from 6 = 4, then 4 + 2 = 6.
(d)	(e)	(f)						
$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$	$\begin{array}{r} 6 \\ -2 \\ \hline 4 \end{array}$						

This page is for study only.

$$\begin{array}{r} 25 \\ + 72 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 5 = 13$
 $13 - 5 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 97 \\ - 63 \\ \hline \end{array}$$

▲ $9 + \begin{array}{|c|} \hline \square \\ \hline \end{array} = \begin{array}{|c|} \hline \square \\ \hline \end{array}$
 $\begin{array}{|c|} \hline \square \\ \hline \end{array} - 3 = 9$

$$\begin{array}{r} 45 \\ + 34 \\ \hline \end{array}$$

▲ $7 + \begin{array}{|c|} \hline \square \\ \hline \end{array} = 13$
 $13 - \begin{array}{|c|} \hline \square \\ \hline \end{array} = 7$

$$\begin{array}{r} 99 \\ - 74 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 9 = 14$
 $14 - 9 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 33 \\ + 65 \\ \hline \end{array}$$

▲ $8 + \begin{array}{|c|} \hline \square \\ \hline \end{array} = 16$
 $16 - \begin{array}{|c|} \hline \square \\ \hline \end{array} = 8$

$$\begin{array}{r} 69 \\ - 32 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 6 = 15$
 $15 - 6 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 58 \\ - 35 \\ \hline \end{array}$$

▲ $6 + 8 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$
 $\begin{array}{|c|} \hline \square \\ \hline \end{array} - 8 = 6$

$$\begin{array}{r} 97 \\ - 52 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 9 = 16$
 $16 - 9 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 57 \\ + 32 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 7 = 12$
 $12 - 7 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 23 \\ + 64 \\ \hline \end{array}$$

▲ $7 + \begin{array}{|c|} \hline \square \\ \hline \end{array} = 14$
 $14 - \begin{array}{|c|} \hline \square \\ \hline \end{array} = 7$

$$\begin{array}{r} 46 \\ + 42 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 4 = 13$
 $13 - 4 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 68 \\ - 26 \\ \hline \end{array}$$

▲ $9 + 9 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$
 $\begin{array}{|c|} \hline \square \\ \hline \end{array} - 9 = 9$

$$\begin{array}{r} 97 \\ - 35 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 8 = 17$
 $17 - 8 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 26 \\ + 53 \\ \hline \end{array}$$

▲ $4 + \begin{array}{|c|} \hline \square \\ \hline \end{array} = 12$
 $12 - \begin{array}{|c|} \hline \square \\ \hline \end{array} = 4$

$$\begin{array}{r} 68 \\ - 43 \\ \hline \end{array}$$

▲ $\begin{array}{|c|} \hline \square \\ \hline \end{array} + 7 = 15$
 $15 - 7 = \begin{array}{|c|} \hline \square \\ \hline \end{array}$

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 15. See if your answers are the same as the red numerals in the windows.

ADDING WITH ZEROS AND BY ENDINGS

	21 41		31 61		51 6
--	----------	--	----------	--	---------

A

SCORE BOARD		
	RANGERS	INDIANS
1ST INNING	4	2
2ND INNING	0	1
3RD INNING	2	0

The Rangers made no runs in the second inning. The Indians made no runs in the third inning. 0 is called **zero**. It means **not any** or **none**. 0 shows when the teams did **not** score **any** runs.

	22 32		42 52		72 8
--	----------	--	----------	--	---------

B

20 = 2 TENS and 0 ONES
40 = 4 TENS and 0 ONES

$$\begin{array}{r} 20 \\ +40 \\ \hline 60 \end{array}$$

Add the ONES: $0 + 0 = 0$
Write 0 in ONES place.
Add the TENS: $2 + 4 = 6$
Write 6 in TENS place.
When you add zero to zero, the sum is zero.

	24 44		54 64		84 58
--	----------	--	----------	--	----------

C

$$\begin{array}{r} 40 \\ +25 \\ \hline 65 \end{array}$$

Add the ONES: $0 + 5 = 5$
Write 5 in ONES place.
Add the TENS: $4 + 2 = 6$
Write 6 in TENS place.

Add: $\begin{array}{r} 30 \\ 54 \\ 13 \\ \hline 97 \end{array}$

Add the ONES. Think: $0 + 4 = 4$; $4 + 3 = 7$
Write 7 in ONES place.
Add the TENS. Think: $3 + 5 = 8$; $8 + 1 = 9$
Write 9 in TENS place.

When you add a number to zero, the sum is that number.

	22 7		42 5		82 55
--	---------	--	---------	--	----------

D

Add: $\begin{array}{r} 5 \\ 40 \\ 3 \\ \hline 48 \end{array}$ Add the ONES. Think: $5 + 0 = 5$; $5 + 3 = 8$
Write 8 in ONES place.
Add the TENS. There are only 4 tens.
Write 4 in TENS place.

When you add zero to a number, the sum is that number.

When you see 3 or more addends the example is always an addition, so a plus sign is not needed.

	27 47		57 69		97 8
--	----------	--	----------	--	---------

E

5	15	25	35	45	55	65	75	85	95
+2	+2	+2	+2	+2	+2	+2	+2	+2	+2
7	17	27	37	47	57	67	77	87	97

If you add 2 to any number ending in 5, your sum will end in 7.

2	6	22	36	6	52	2	76	82
+6	+12	+6	+2	+42	+6	+66	+2	+6
8	18	28	38	48	58	68	78	88

If you add any two numbers ending in 2 and 6, your sum will end in 8.

F

This page is for study only. Study the panels above as you look at the examples on page 15. DO NOT write through the windows on this page.

ADD:

$$\begin{array}{r} 0+6= \\ 6+0 \end{array}$$

$$\begin{array}{r} 30 \\ 35 \\ \hline \end{array}$$

$$10 + 6 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 97 \\ 8 \end{array}$$

$$\begin{array}{r} 2+7= \\ 7+2 \end{array}$$

$$\begin{array}{r} 41 \\ 20 \\ 12 \\ \hline \end{array}$$

$$12 + 7 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 25 \\ 5 \end{array}$$

$$\begin{array}{r} 3+6= \\ 6+3 \end{array}$$

$$\begin{array}{r} 63 \\ 22 \\ 10 \\ \hline \end{array}$$

$$13 + 6 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 23 \\ 14 \end{array}$$

$$\begin{array}{r} 4+5= \\ 5+4 \end{array}$$

$$\begin{array}{r} 20 \\ 22 \\ 22 \\ \hline \end{array}$$

$$14 + 5 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 87 \\ 7 \end{array}$$

$$\begin{array}{r} 3+5= \\ 5+3 \end{array}$$

$$\begin{array}{r} 6 \\ 30 \\ 50 \\ \hline \end{array}$$

$$13 + \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array} = 18$$

$$\begin{array}{r} 62 \\ 9 \end{array}$$

$$\begin{array}{r} 40 \\ 50 \\ \hline \end{array}$$

$$30 + 6 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 34 \\ 12 \end{array}$$

$$\begin{array}{r} 20 \\ 9 \\ 40 \\ \hline \end{array}$$

$$22 + 7 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 98 \\ 8 \end{array}$$

$$\begin{array}{r} 22 \\ 53 \\ 13 \\ \hline \end{array}$$

$$33 + 6 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 45 \\ 7 \end{array}$$

$$\begin{array}{r} 40 \\ 30 \\ 10 \\ \hline \end{array}$$

$$25 + 4 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 88 \\ 9 \end{array}$$

$$\begin{array}{r} 43 \\ 40 \\ 14 \\ \hline \end{array}$$

$$\begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array} + 3 = 18$$

$$\begin{array}{r} 79 \\ 8 \end{array}$$

$$\begin{array}{r} 54 \\ 10 \\ \hline \end{array}$$

$$50 + 6 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 79 \\ 6 \end{array}$$

$$\begin{array}{r} 30 \\ 33 \\ 30 \\ \hline \end{array}$$

$$47 + 2 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 37 \\ 9 \end{array}$$

$$\begin{array}{r} 50 \\ 4 \\ 40 \\ \hline \end{array}$$

$$56 + 3 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 89 \\ 5 \end{array}$$

$$\begin{array}{r} 57 \\ 30 \\ 2 \\ \hline \end{array}$$

$$44 + 5 = \begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array}$$

$$\begin{array}{r} 42 \\ 18 \end{array}$$

$$\begin{array}{r} 5 \\ 82 \\ 2 \\ \hline \end{array}$$

$$\begin{array}{|c|c|c|c|} \hline & & & \\ \hline \end{array} + 5 = 78$$

$$\begin{array}{r} 25 \\ 8 \end{array}$$

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 17. See if your answers are the same as the blue numerals in the windows.

NOTE: Pay no attention to the red numerals outside the boxes.

<p>117 one</p> <p>$5+6=$ $6+5=$</p> <p>15 $+6$</p> <p>▲ $35 + 6 =$ <input type="text"/></p>	<p>107 nine</p> <p>25 $+6$</p> <p>▲ $55 + 6 =$ <input type="text"/></p>	<p>119 zero</p> <p>45 $+6$</p> <p>▲ <math>65 + \text{<input type="text"/></math> = 71</p>
<p>109 five</p> <p>$4+8=$ $8+4=$</p> <p>14 $+8$</p> <p>▲ $24 + 8 =$ <input type="text"/></p>	<p>118 five</p> <p>34 $+8$</p> <p>▲ $44 + 8 =$ <input type="text"/></p>	<p>105 five</p> <p>64 $+8$</p> <p>▲ <math>74 + \text{<input type="text"/></math> = 82</p>
<p>139 609</p> <p>$6+8=$ $8+6=$</p> <p>16 $+8$</p> <p>▲ $36 + 8 =$ <input type="text"/></p>	<p>108 810</p> <p>46 $+8$</p> <p>▲ $56 + 8 =$ <input type="text"/></p>	<p>57 81</p> <p>76 $+8$</p> <p>▲ <math>\text{<input type="text"/></math> + 6 = 64</p>
<p>101 100</p> <p>$5+7=$ $7+5=$</p> <p>15 $+7$</p> <p>▲ <math>25 + \text{<input type="text"/></math> = 32</p>	<p>135 60</p> <p>35 $+7$</p> <p>▲ <math>47 + \text{<input type="text"/></math> = 52</p>	<p>138 7</p> <p>75 $+7$</p> <p>▲ <math>\text{<input type="text"/></math> + 7 = 62</p>
<p>149 20</p> <p>$8+9=$ $9+8=$</p> <p>18 $+9$</p> <p>▲ $38 + 9 =$ <input type="text"/></p>	<p>106 300</p> <p>48 $+9$</p> <p>▲ <math>\text{<input type="text"/></math> + 8 = 77</p>	<p>137 65</p> <p>88 $+9$</p> <p>▲ <math>89 + \text{<input type="text"/></math> = 97</p>

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

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3 — To check your work, put your paper or Magic Slate under page 14. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

ADDING BY ENDINGS: BRIDGING

(NOTE: The Study Pages are for explanation only. Here, and in later Study Pages, we show "missing" numerals in red to help you to understand. On the Practice Pages, such numerals really are missing.)



A

Start at stone 8. Count 2 more stones. You reach stone 10.
 Start at stone 18. Count 2 more stones. You reach stone 20.
 Start at stone 22. Count 8 more stones. You reach stone 30.
 Start at stone 52. Count 8 more stones. You reach stone 60.

If you add any two numbers ending in 8 and 2, your sum will end in 0.



B

6	16	26	6	6	9	9	79	89
+9	+9	+9	+39	+49	+56	+66	+6	+6
15	25	35	45	55	65	75	85	95

If you add any two numbers ending in 6 and 9, your sum will end in 5.

Look at the facts on the left.
 The first fact is called a **key fact**. The key fact helps you to find the sums for many other addition examples.



C

7	17	24	34	47	4	7	77	84
+4	+4	+7	+7	+4	+57	+64	+4	+7
11	21	31	41	51	61	71	81	91

If you add any two numbers ending in 7 and 4, your sum will end in 1.

Find the missing numeral (see NOTE above)

$$37 + \boxed{\text{red}} = 41$$

Look at the key fact.

Think: $7 + 4 = 11$, so $37 + 4 = 41$

The missing numeral is 4.



D

Find the missing numerals

(1) $45 + 8 = \boxed{\text{red}}$

Think: $5 + 8 = 13$,
 so $45 + 8 = 53$

The missing numeral is 53.

(2) $58 + \boxed{\text{red}} = 63$

Think: $8 + 5 = 13$,
 so $58 + 5 = 63$

The missing numeral is 5.

(3) $\boxed{\text{red}} + 8 = 43$

Think: $5 + 8 = 13$,
 so $35 + 8 = 43$

The missing numeral is 35.

This page is for study only. Study the panels above as you look at the examples on page 16.
 DO NOT write through the windows on this page.

WRITE
THE
WORDS:

$$\begin{array}{r} 72 \\ +45 \\ \hline \end{array}$$

176

How many in hundreds place?

$$\begin{array}{r} 27 \\ +80 \\ \hline \end{array}$$

249

How many in ones place?

$$\begin{array}{r} 64 \\ +55 \\ \hline \end{array}$$

608

How many in tens place?

$$\begin{array}{r} 73 \\ +36 \\ \hline \end{array}$$

555

How many in tens place?

$$\begin{array}{r} 43 \\ +75 \\ \hline \end{array}$$

55

How many in tens place?

$$\begin{array}{r} 62 \\ +43 \\ \hline \end{array}$$

555

How many in hundreds place?

WRITE
THE
DIGITS:

$$\begin{array}{r} 42 \\ +97 \\ \hline \end{array}$$

Six hundred nine

$$\begin{array}{r} 92 \\ +16 \\ \hline \end{array}$$

Eight hundred ten

$$\begin{array}{r} 43 \\ +14 \\ \hline \end{array}$$

8 tens + 1

$$\begin{array}{r} 40 \\ +61 \\ \hline \end{array}$$

134 = $\begin{array}{|c|} \hline \square \\ \hline \end{array}$ + 30 + 4

$$\begin{array}{r} 73 \\ +62 \\ \hline \end{array}$$

162 = 100 + $\begin{array}{|c|} \hline \square \\ \hline \end{array}$ + 2

$$\begin{array}{r} 80 \\ +58 \\ \hline \end{array}$$

107 = 80 + 20 + $\begin{array}{|c|} \hline \square \\ \hline \end{array}$

$$\begin{array}{r} 55 \\ +94 \\ \hline \end{array}$$

226 = 200 + $\begin{array}{|c|} \hline \square \\ \hline \end{array}$ + 6

$$\begin{array}{r} 82 \\ +24 \\ \hline \end{array}$$

340 = $\begin{array}{|c|} \hline \square \\ \hline \end{array}$ + 40 + 0

$$\begin{array}{r} 54 \\ +83 \\ \hline \end{array}$$

465 = 200 + 200 + $\begin{array}{|c|} \hline \square \\ \hline \end{array}$

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THREE-DIGIT SUMS

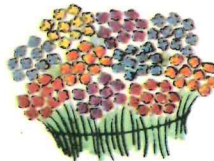
A



10 TENS

= 1 HUNDRED

B



123 = 1 HUNDRED, 2 TENS, and 3 ONES

C



249 = 24 TENS

and 9 ONES

D



249 also equals 2 HUNDREDS, 4 TENS, and 9 ONES

E

HUNDREDS	TENS	ONES
	7	2
+	6	3
1	3	5

Add the ONES: $2 + 3 = 5$ Write 5 in ONES place.Add the TENS: $7 + 6 = 13$ 13 TENS = 1 HUNDRED and 3 TENS.

So we write 3 in TENS place and 1 in HUNDREDS place.

F

HUNDREDS	TENS	ONES
	6	3
+	4	6
1	0	9

Add the ONES: $3 + 6 = 9$ Write 9 in ONES place.Add the TENS: $6 + 4 = 10$ 10 TENS = 1 HUNDRED AND 0 TENS.


Write 0 in TENS place and 1 in HUNDREDS place.

G

What do you know about five hundred fourteen?

Think: We write five hundred fourteen this way — 514. The 5 shows 5 HUNDREDS, the 1 shows 1 TEN, and the 4 shows 4 ONES.

H

514 = 200 + 300 + 

Think: $200 + 300 = 500$;
 $514 - 500 = 14$ So the
 missing numeral is **14**

ADDITION REVIEW

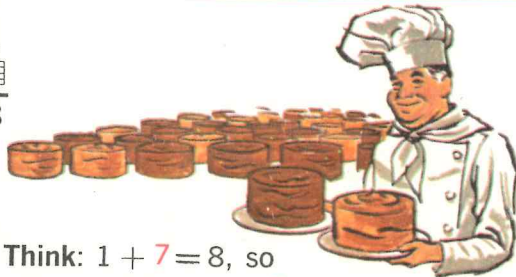
This page is for study only. Study the panels below as you look at the examples on page 21.

A

Mr. Brown baked 51 chocolate cakes and some orange cakes.
He baked 138 cakes in all. How many orange cakes did he bake?

B

$$\begin{array}{r} 51 \\ + \text{[grid]} \\ \hline 138 \end{array}$$



ONES Think: $1 + 7 = 8$, so
the missing ONES digit is **7**.
TENS Think: $5 + 8 = 13$, so
the missing TENS digit is **8**.
Mr. Brown baked **87** orange cakes.

$$\begin{array}{r} 51 \\ + 87 \\ \hline 138 \end{array}$$

Study this example

$$\begin{array}{r} \text{[grid]}4 \\ + 9\text{[grid]} \\ \hline 177 \end{array}$$



ONES Think: $4 + 3 = 7$, so
the missing ONES digit is **3**.
TENS Think: $8 + 9 = 17$, so
the missing TENS digit is **8**.

$$\begin{array}{r} 84 \\ + 93 \\ \hline 177 \end{array}$$

C

D

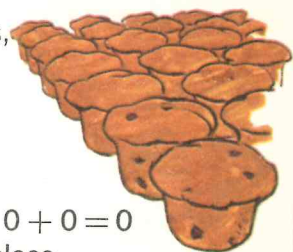
Mr. Brown sold 50 apple pies,
3 blueberry pies,
and 74 lemon pies.
How many pies
did he sell in all?



$$\begin{array}{r} 50 \\ 3 \\ + 74 \\ \hline 127 \end{array}$$

ONES: $0 + 3 = 3$; $3 + 4 = 7$
Write 7 in ONES place.
TENS: $5 + 7 = 12$
Write 2 in TENS place
and 1 in HUNDREDS place.
Mr. Brown sold 127 pies in all.

He sold 30 bran muffins,
10 blueberry muffins,
and 90 corn muffins.
How many muffins did
he sell in all?



$$\begin{array}{r} 30 \\ 10 \\ + 90 \\ \hline 130 \end{array}$$

ONES: $0 + 0 = 0$; $0 + 0 = 0$
Write 0 in ONES place.
TENS: $3 + 1 = 4$; $4 + 9 = 13$
Write 3 in TENS place
and 1 in HUNDREDS place.
Mr. Brown sold 130 muffins in all.

E


F


Did you add the ONES first? Did you add down? You may check your sums by adding up.
Did you remember that when you add zero to a number, the sum is that number?
Did you remember that when you add a number to zero, the sum is that number?
Did you remember that when you add zero to zero, the sum is zero?

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a** and **b**. The red numerals in the windows are the right answers.

a

$$\begin{array}{r} 42 \\ 46 \\ \hline 20 \end{array}$$

a 


b 


b

$$\begin{array}{r} 90 \\ + 42 \\ \hline 132 \end{array}$$

a

$$\begin{array}{r} 20 \\ 32 \\ \hline 67 \end{array}$$

a 


b 


b

$$\begin{array}{r} 60 \\ + 40 \\ \hline 100 \end{array}$$

a



$$\begin{array}{r} 15 \\ 50 \\ \hline 74 \end{array}$$

a 

b 


b


$$\begin{array}{r} 80 \\ + 79 \\ \hline 159 \end{array}$$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the  points, and for **b** where the  points.

a

$$\begin{array}{r} 23 \\ 40 \\ \hline 42 \end{array}$$

a 


b 


b

$$\begin{array}{r} 86 \\ + 31 \\ \hline 117 \end{array}$$

a

$$\begin{array}{r} 31 \\ 4 \\ \hline 92 \end{array}$$

a 


b 


b

$$\begin{array}{r} 40 \\ + 75 \\ \hline 115 \end{array}$$

a

$$\begin{array}{r} 10 \\ 20 \\ \hline 70 \end{array}$$

a 

b 


b


$$\begin{array}{r} 70 \\ + 97 \\ \hline 167 \end{array}$$

3 — To check your work, put your paper or Magic Slate under page 23. See if your answers are the same as the red numerals in the windows.

a

$$\begin{array}{r} 41 \\ 13 \\ \hline 53 \end{array}$$

a 


b 


b

$$\begin{array}{r} 95 \\ + 60 \\ \hline 155 \end{array}$$

a

$$\begin{array}{r} 5 \\ 61 \\ \hline 61 \end{array}$$

a 

b 

b

$$\begin{array}{r} 80 \\ + 56 \\ \hline 136 \end{array}$$

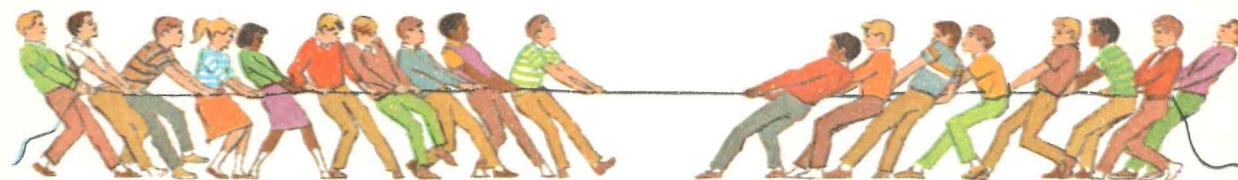
ADDITION: RENAMING AND REGROUPING

A

Any number may be named in many different ways. $1 + 9$, $2 + 8$, $3 + 7$, $4 + 6$, and so on, are all names for 10. $11 - 1$, $12 - 2$, $13 - 3$, etc., all mean 10, too. So does $100 - 90$. How many names can you think of for 10? You are right: there are so many names for 10 that it would be difficult to count them all!



B



b $10 + 8 =$

You know the answer to b: $10 + 8 = 18$

c $(8 +$ $) + 8 = 18$

c: You know the sum is 18, and that one of the addends is 8. $18 - 8 = 10$ The sum of the two addends in the parentheses must be another name for 10. $(8 + 2) = 10$ The missing addend is 2. You know the answer to d, too: $10 + 8 = 18$

d $+ 8 = 18$



C



$50 + 40 = 90$

b $(30 +$ $) + 40 = 90$

b: You know the sum is 90, and that one of the addends is 40. $90 - 40 = 50$ The sum of the two addends in the parentheses must be another name for 50. $(30 + 20) = 50$ The missing addend is 20.

c $+ (20 + 40) = 90$

c: Let's **regroup** the addends, and put the 20 and the 40 in the parentheses. $(20 + 40) = 60$ The sum is still 90, so the missing addend is $90 - 60$, or 30.

d $30 +$ $= 90$

d: $3 + 6 = 9$, so $30 + 60 = 90$



D



If you regroup addends to form different numerals, the sum will still be the same.



This page is for study only. Study the panels above as you look at the examples on page 23.



DIRECTIONS: 1 — Study the examples on this page. The examples are named **a**, **b**, **c**, and **d**. The blue numerals in the windows are the right answers.



a

$$\begin{array}{r} 14 \\ 10 \\ \hline 92 \end{array}$$

a   **108**

b   **90**

c   **+42**

d   **132**



b $10 + 3 = \square$



c $(7 + 3) + 3 = \square$



d $\square + 3 = 13$



a

$$\begin{array}{r} 22 \\ 25 \\ \hline 51 \end{array}$$

a   **119**

b   **60**

c   **+40**

d   **100**



b $10 + 6 = \square$



c $(6 + \square) + 6 = 16$



d $\square + 6 = 16$



a

$$\begin{array}{r} 33 \\ 6 \\ \hline 80 \end{array}$$

a   **139**

b   **78**



c   **+81**

d   **159**

b $10 + 9 = \square$



c $(\square + 1) + 9 = 19$



d $\square + 9 = 19$



2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the  points; for **b** where the  points, etc.



a

$$\begin{array}{r} 56 \\ 80 \\ \hline 2 \end{array}$$

a   **105**

b   **86**

c   **+31**

d   **117**

10 + 25 = 35


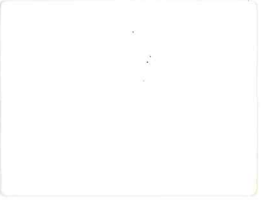
b $10 + (\square + 5) = 35$


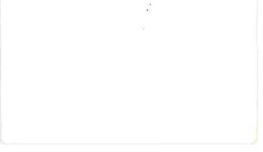
c $(10 + 20) + \square = 35$


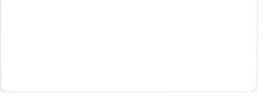
d $\square + 5 = 35$



a

$$\begin{array}{r} 31 \\ 40 \\ \hline 76 \end{array}$$

a   **127**

b   **74**

c   **+71**

d   **145**

50 + 10 = 60


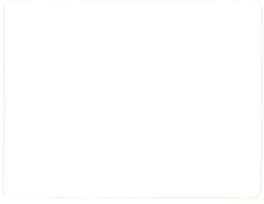
b $(30 + \square) + 10 = 60$


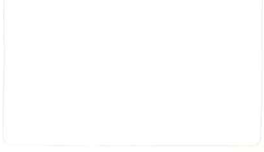
c $\square + (20 + 10) = 60$



d $30 + \square = 60$



a

$$\begin{array}{r} 73 \\ 3 \\ \hline 33 \end{array}$$

a   **100**

b   **97**

c   **+70**

d   **167**

30 + 60 = 90

b $30 + (30 + \square) = 90$

c $(30 + \square) + 30 = 90$



d $60 + \square = 90$



3 — To check your work, put your paper or Magic Slate under page 25. See if your answers are the same as the blue numerals in the windows.



NOTE: Pay no attention to the red numerals outside the boxes.



a

$$\begin{array}{r} 1 \\ 77 \\ \hline 81 \end{array}$$

a   **107**

b   **60**

c   **+95**

d   **155**

90 + 30 = 120



b $90 + (10 + \square) = 120$



c $(90 + \square) + 20 = 120$



d $\square + 20 = 120$



a

$$\begin{array}{r} 70 \\ 24 \\ \hline 30 \end{array}$$

a   **127**

b   **86**

c   **+50**

d   **136**

120 + 80 = 200

b $(\square + 20) + 80 = 200$

c $100 + (\square + 80) = 200$

d $100 + \square = 200$

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a**, **b**, **c**, and **d**. The red numerals in the windows are the right answers.

a $\begin{array}{r} 8 \\ 7 \\ 9 \\ \hline \end{array}$

18
2
5
10

b $9 + (1 + \boxed{}) = 11$
c $(9 + \boxed{}) + 1 = 11$
d $10 + \boxed{} = 11$

a $\begin{array}{r} 7 \\ 7 \\ 4 \\ \hline \end{array}$

21
6
9
10

b $6 + (\boxed{} + 1) = 11$
c $(6 + 4) + \boxed{} = 11$
d $\boxed{} + 1 = 11$

a $\begin{array}{r} 9 \\ 6 \\ 5 \\ \hline \end{array}$

22
8
7
10

b $9 + (1 + \boxed{}) = 12$
c $(\boxed{} + 1) + 2 = 12$
d $10 + \boxed{} = 12$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the \blacktriangleleft points; for **b** where the \blacktriangleleft points, etc.

a $\begin{array}{r} 8 \\ 6 \\ 8 \\ \hline \end{array}$

22
8
9
10

b $3 + (\boxed{} + 2) = 12$
c $(\boxed{} + 7) + 2 = 12$
d $\boxed{} + 2 = 12$

a $\begin{array}{r} 9 \\ 9 \\ 8 \\ \hline \end{array}$

23
3
3
27

b $4 + (6 + \boxed{}) = 13$
c $(4 + \boxed{}) + 3 = 13$
d $10 + \boxed{} = 13$

a $\begin{array}{r} 9 \\ 4 \\ 3 \\ \hline \end{array}$

20
7
2
9

b $(\boxed{} + 6) + 4 = 13$
c $3 + (6 + \boxed{}) = 13$
d $3 + \boxed{} = 13$

3 — To check your work, put your paper or Magic Slate under page 22. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

a $\begin{array}{r} 9 \\ 3 \\ 8 \\ \hline \end{array}$

21
6
10
40

b $9 + \boxed{} = 14$
c $9 + (1 + \boxed{}) = 14$
d $(9 + \boxed{}) + 4 = 14$

a $\begin{array}{r} 7 \\ 8 \\ 8 \\ \hline \end{array}$

25
10
10
100

b $5 + (5 + \boxed{}) = 14$
c $(\boxed{} + 5) + 4 = 14$
d $\boxed{} + 4 = 14$

COLUMN ADDITION AND MORE REGROUPING

A

$6 + 9 = 15$

$(5 + 1) + 9 =$

$5 + (1 + 9) =$

$5 + 10 =$

What if we forgot the sum of $6 + 9$? It would be helpful to regroup the numbers into TENS and ONES.

First, **rename** 6 ($5 + 1$). Then, regroup to combine the 1 with the 9, as $(1 + 9)$. Now add $(1 + 9) = 10$. Result: $5 + 10 = 15$, so $6 + 9 = 15$

116
13
13
10

98
16
4
10

119
19
9
10

B



$8 + 5 = 13$

Rename 5 ($2 + 3$).....

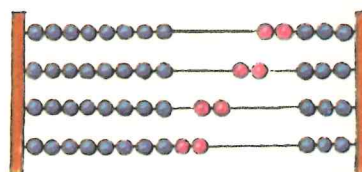
Regroup: put the 2 with the 8.....

Add $(8 + 2)$: $(8 + 2) = 10$

$8 + (2 + 3) =$

$(8 + 2) + 3 =$

$10 + 3 =$



C



$7 + 8 = 15$

Rename 8 ($3 + 5$).....

Regroup: put the 3 with the 7.....

Add $(7 + 3)$: $(7 + 3) = 10$

$7 + (3 + 5) = 15$

$(7 + 3) + 5 = 15$

$10 + 5 = 15$

Can you find the missing numerals?

The missing numeral is 5.

The missing numeral is 3.

The missing numeral is 10.

138
20
5
30

147
20
30
30

109
30
30
30

D



Alan's class is doing column addition.

7 First add $7 + 8$ ($7 + 8 = 15$)
8 Remember 15; do not write it.)
9 Then add $15 + 9$
24 ($5 + 9 = 14$, so $15 + 9 = 24$)

E

9 First add $9 + 8$

8 ($9 + 8 = 17$ Remember 17.)

6 Then add $17 + 6$

23 ($7 + 6 = 13$, so $17 + 6 = 23$)



6 First add $6 + 8$

8 ($6 + 8 = 14$ Remember 14.)

7 Then add $14 + 7$

21 ($4 + 7 = 11$, so $14 + 7 = 21$)




F

159
20
10
100

124
100
20
100

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a**, **b**, **c**, and **d**. The blue numerals in the windows are the right answers.

a

$$\begin{array}{r} 7 \\ 5 \\ 6 \\ \hline \end{array}$$



b $8 + 7 = 15$

c $8 + (\text{grid}) + 5 = 15$

d $(8 + 2) + \text{grid} = 15$

$\text{grid} + 5 = 15$

a

$$\begin{array}{r} 8 \\ 5 \\ 8 \\ \hline \end{array}$$



b $7 + 9 = 16$

c $(\text{grid} + 1) + 9 = 16$

d $6 + (1 + \text{grid}) = 16$

$6 + \text{grid} = 16$

a

$$\begin{array}{r} 9 \\ 9 \\ 4 \\ \hline \end{array}$$


b $8 + 9 = 17$


c $9 + \text{grid} = 17$

d $(9 + 1) + \text{grid} = 17$

$\text{grid} + 7 = 17$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the **a** points; for **b** where the **b** points, etc.

a

$$\begin{array}{r} 7 \\ 6 \\ 9 \\ \hline \end{array}$$



b $9 + 9 = 18$

c $9 + (1 + \text{grid}) = 18$

d $(\text{grid} + 1) + 8 = 18$

$\text{grid} + 8 = 18$

a

$$\begin{array}{r} 9 \\ 7 \\ 7 \\ \hline \end{array}$$



b $24 + 13 = 37$

c $24 + (\text{grid} + 10) = 37$

d $(24 + \text{grid}) + 10 = 37$

$\text{grid} + 10 = 37$

a

$$\begin{array}{r} 9 \\ 5 \\ 6 \\ \hline \end{array}$$


b $47 + 22 = 69$


c $(40 + \text{grid}) + (20 + 2) = 69$

d $(40 + 20) + (7 + \text{grid}) = 69$

$60 + \text{grid} = 69$

3 — To check your work, put your paper or Magic Slate under page 24. See if your answers are the same as the blue numerals in the windows.

a

$$\begin{array}{r} 7 \\ 9 \\ 5 \\ \hline \end{array}$$



b $36 + 12 = 48$

c $(30 + \text{grid}) + (10 + 2) = 48$

d $(30 + \text{grid}) + (6 + 2) = 48$

$\text{grid} + 8 = 48$

a

$$\begin{array}{r} 8 \\ 8 \\ 9 \\ \hline \end{array}$$


b $64 + 55 = 119$

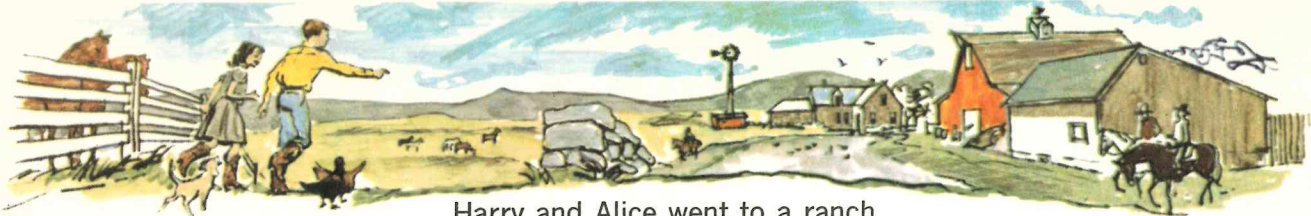
c $(60 + 4) + (50 + 5) = 119$

d $(60 + 40) + (\text{grid} + 4 + 5) = 119$

$(60 + 40) + (\text{grid} + 9) = 119$

$\text{grid} + 19 = 119$

REGROUPING TENS AND ONES



Harry and Alice went to a ranch.

They saw 32 black horses
and 15 gray horses.
How many horses did they see?



A

$$32 + 15 = \text{[base ten blocks]}$$

$$(30 + 2) + (10 + 5) = \text{[base ten blocks]}$$

$$(30 + 10) + (2 + 5) = \text{[base ten blocks]}$$

$$40 + 7 = \text{[base ten blocks]}$$

Step 1: $32 = 3$ TENS and 2 ONES. Rename it $(30 + 2)$.
 $15 = 1$ TEN and 5 ONES. Rename it $(10 + 5)$.

Step 2: Now regroup the addends in the parentheses.

Put the TENS together: $(30 + 10)$

Put the ONES together: $(2 + 5)$

Step 3: $(30 + 10) = 40$, and $(2 + 5) = 7$

Step 4: Now we are ready to add: $40 + 7 = 47$

B

Alice counted 128
head of cattle.
72 of them were black
and 56 were brown.



C

Find the missing numerals

Rename 72 and 56.....

Regroup the addends.....

$(70 + 50) = 120$; $(2 + 6) = 8$

Now we are ready to add.....

$$72 + 56 = 128$$

$$(70 + \text{[base ten blocks]}) + (50 + 6) = 128$$

$$(70 + 50) + (2 + \text{[base ten blocks]}) = 128$$

$$(100 + \text{[base ten blocks]}) + 8 = 128$$

$$120 + \text{[base ten blocks]} = 128$$

The missing numeral is:

2

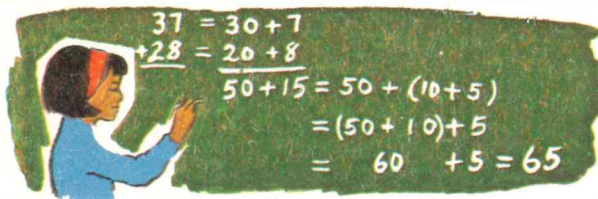
6

20

8

CARRYING TENS (1)

A



$$\begin{array}{r}
 37 = 30 + 7 \\
 +28 = 20 + 8 \\
 \hline
 50 + 15 = 50 + (10 + 5) \\
 = (50 + 10) + 5 \\
 = 60 + 5 = 65
 \end{array}$$

Ann added $30 + 20$ and $7 + 8$ and got $50 + 15$. Then she renamed 15 ($10 + 5$). She regrouped the addends so that all the TENS were together. Then she added the TENS to the ONES.

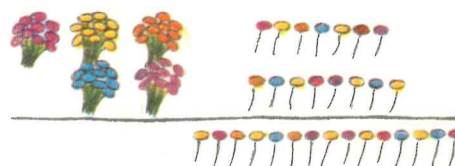
B

The teacher showed Ann a shorter way to do the example:

$$\begin{array}{r}
 37 \\
 +28 \\
 \hline
 \end{array}$$

Step 1

Add the ONES first:
Think: $7 + 8 = 15$

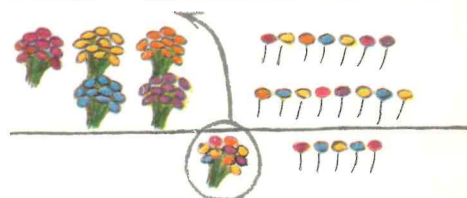


C

$$\begin{array}{r}
 1 \\
 37 \\
 +28 \\
 \hline
 5
 \end{array}$$

Step 2

$15 = 1$ TEN and 5 ONES.
Write 5 in ONES place.
Add the TEN to the other TENS.
We call this **carrying** a TEN.

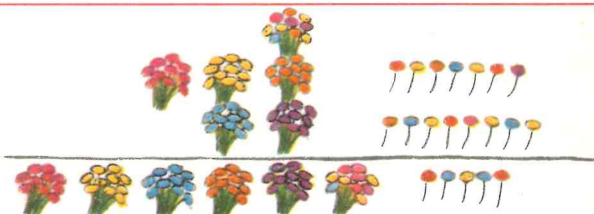


D

$$\begin{array}{r}
 1 \\
 37 \\
 +28 \\
 \hline
 65
 \end{array}$$

Step 3

Now add the TENS:
Think: $1 + 3 = 4$; $4 + 2 = 6$
Write 6 in TENS place.



E

$$\begin{array}{r}
 1 \\
 39 \\
 +47 \\
 \hline
 86
 \end{array}$$



ONES: $9 + 7 = 16$, or 1 TEN and 6 ONES.
Write 6 in ONES place and carry 1 TEN.
TENS: $1 + 3 = 4$; $4 + 4 = 8$
Write 8 in TENS place.

NOTE: In this book you cannot write the numbers carried above the printed numerals. You can learn to remember them, and not write them.

This page is for study only. Study the panels above as you look at the examples on page 29.

FIND THE SUMS:

$$\begin{array}{r} 14 \\ 79 \\ \hline \end{array}$$

$$20 + 4 = \boxed{}$$

$$\begin{array}{r} 33 \\ 28 \\ \hline \end{array}$$

$$10 + 14 = \boxed{}$$

$$\begin{array}{r} 48 \\ 44 \\ \hline \end{array}$$

$$10 + 14 = \boxed{} + 4$$

$$\begin{array}{r} 56 \\ 36 \\ \hline \end{array}$$

$$40 + 2 = \boxed{}$$

$$\begin{array}{r} 65 \\ 27 \\ \hline \end{array}$$

$$30 + 12 = \boxed{}$$

$$\begin{array}{r} 54 \\ 17 \\ \hline \end{array}$$

$$30 + 12 = \boxed{} + 2$$

$$\begin{array}{r} 53 \\ 29 \\ \hline \end{array}$$

$$50 + 9 = \boxed{}$$

$$\begin{array}{r} 47 \\ 52 \\ \hline \end{array}$$

$$40 + 19 = \boxed{}$$

$$\begin{array}{r} 45 \\ 39 \\ \hline \end{array}$$

$$40 + 19 = \boxed{} + 9$$

$$\begin{array}{r} 38 \\ 57 \\ \hline \end{array}$$

$$30 + 7 + \boxed{} = 47$$

$$\begin{array}{r} 24 \\ 66 \\ \hline \end{array}$$

$$30 + \boxed{} + 10 = 49$$

$$\begin{array}{r} 49 \\ 26 \\ \hline \end{array}$$

$$\boxed{} + 30 + 5 = 45$$

$$\begin{array}{r} 68 \\ 15 \\ \hline \end{array}$$

$$45 + 5 + 30 = \boxed{}$$

$$\begin{array}{r} 74 \\ 18 \\ \hline \end{array}$$

$$\boxed{} + 35 + 10 = 50$$

$$\begin{array}{r} 32 \\ 38 \\ \hline \end{array}$$

$$51 + \boxed{} + 30 = 90$$

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 31. See if your answers are the same as the red numerals in the windows.

CARRYING TENS (2)

61
9

119
90

122
900

A



152 = 15 TENS and 2 ONES

B



152 = 1 HUNDRED, 5 TENS, and 2 ONES

112
8

108
20

110
800

C



One day Florence and her mother drove 88 miles in the morning and 49 miles in the afternoon. How many miles did they drive that day? Panel D shows the answer.

114
8

87
80

124
500

D

$$\begin{array}{r} \overset{1}{88} \\ +49 \\ \hline 137 \end{array}$$

Add the ONES: $8 + 9 = 17$, or 1 TEN and 7 ONES. Write 7 in ONES place and carry 1 TEN.

Add the TENS: $1 + 8 = 9$; $9 + 4 = 13$, or 1 HUNDRED and 3 TENS. Write 3 in TENS place and 1 in HUNDREDS place.


Note: Remember the TEN we carried. Do not write in this book.

165
6

123
200

167
600

E



$$\begin{array}{r} \overset{1}{48} \\ +76 \\ \hline 124 \end{array}$$

Add the ONES: $8 + 6 = 14$, or 1 TEN and 4 ONES. Write 4 in ONES place and carry 1 TEN.

Add the TENS: $1 + 4 = 5$; $5 + 7 = 12$, or 1 HUNDRED and 2 TENS. Write 2 in TENS place and 1 in HUNDREDS place.

123
10

112
70

100
3

F

14 S $8 = 16 + (10 - 4)$

Think: $16 + (10 - 4) = 22$

$14 - 8 = 6$; $14 + 8 = 22$, so the missing sign must be **+**.

310 + 40 = 370 S $(100 - 80)$

Think: $310 + 40 = 350$

$370 + (100 - 80) = 390$; $370 - (100 - 80) = 350$, so the missing sign must be **-**.

Plus or minus? (S stands for the missing sign.)

This page is for study only. Study the panels above as you look at the examples on page 31. DO NOT write through the windows on this page.

$\begin{array}{r} 52 \\ +49 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $12 = 3 \text{ [S] } 9$ b $12 \text{ [S] } 5 = 14 - 7$ </div>	$\begin{array}{r} 84 \\ +66 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $7 \text{ [S] } 6 = 10 + 3$ b $13 \text{ [S] } 9 = 10 - 6$ </div>	$\begin{array}{r} 45 \\ +58 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $14 = 10 \text{ [S] } (7 - 3)$ b $10 + (14 \text{ [S] } 6) = 18$ </div>
$\begin{array}{r} 86 \\ +97 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $(10 \text{ [S] } 3) - 1 = 12$ b $10 = (9 \text{ [S] } 5) - 4$ </div>	$\begin{array}{r} 69 \\ +37 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $15 - 7 = 15 - (10 \text{ [S] } 3)$ b $10 \text{ [S] } 5 = (3 + 10) + 2$ </div>	$\begin{array}{r} 55 \\ +99 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $(10 \text{ [S] } 4) + 2 = 16 - 0$ b $14 \text{ [S] } 3 = (9 + 11) - 3$ </div>
$\begin{array}{r} 53 \\ +44 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $6 + 9 = (10 \text{ [S] } 2) + 7$ b $17 = (10 \text{ [S] } 9) - 2$ </div>	$\begin{array}{r} 89 \\ +84 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $(9 \text{ [S] } 8) = 20 - 3$ b $(18 \text{ [S] } 9) + 8 = 17$ </div>	$\begin{array}{r} 89 \\ +48 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $18 \text{ [S] } 3 = (11 + 8) - 4$ b $(15 \text{ [S] } 6) + 9 = 18$ </div>
$\begin{array}{r} 79 \\ +82 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $20 + 30 = (70 \text{ [S] } 20)$ b $(60 \text{ [S] } 20) = 25 + 15$ </div>	$\begin{array}{r} 67 \\ +59 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $70 = 20 \text{ [S] } (25 + 25)$ b $55 \text{ [S] } 35 = 50 - 30$ </div>	$\begin{array}{r} 23 \\ +56 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $40 + 30 = 60 \text{ [S] } 10$ b $50 = 30 \text{ [S] } (15 + 5)$ </div>
$\begin{array}{r} 87 \\ +55 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $(100 \text{ [S] } 80) + 20 = 300 - 100$ b $150 = 200 \text{ [S] } (10 + 40)$ </div>	$\begin{array}{r} 76 \\ +49 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $300 + 150 = 400 + (60 \text{ [S] } 10)$ b $250 - 50 = 150 \text{ [S] } (30 + 20)$ </div>	$\begin{array}{r} 77 \\ +67 \\ \hline \end{array}$ <div style="border: 1px solid black; height: 40px; width: 150px; margin: 10px auto;"></div> <div style="display: flex; justify-content: space-around; font-size: small;"> a $(500 \text{ [S] } 50) + 50 = 250 + 250$ b $260 = 230 + (60 \text{ [S] } 30)$ </div>

DIRECTIONS: 1—Study the examples on this page. The blue signs and numerals in the windows are the right answers. **2**—Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. In the examples below the windows, [S] stands for "sign." Write the correct signs where the arrows point.

3—To check your work, put your paper or Magic Slate under page 33. See if your answers are the same as the blue signs and numerals in the windows.

NOTE: Pay no attention to the red numerals outside the boxes.

FIND THE SUMS:

536
15035
26

$5 + 4 = \boxed{}$

704
8062
57

$50 + 40 = \boxed{}$

721
3076
46

$500 + 400 = \boxed{}$

469
2075
37

$2 + 6 = \boxed{}$

727
8064
44

$\boxed{} + 60 = 80$

919
4233
77

$200 + 600 = \boxed{}$

928
6986
28

$3 + 5 = \boxed{}$

418
8857
30

$30 + 50 = \boxed{}$

876
9985
39

$300 + \boxed{} = 800$

842
10089
76

$4 + 2 = \boxed{}$

677
15037
86

$40 + \boxed{} = 240$

749
6074
93

$400 + 200 = \boxed{}$

965
1089
34

$3 + 7 = \boxed{}$

866
15024
88

$300 + \boxed{} = 370$

515
017
83

$\boxed{} + 700 = 703$

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 30. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

CARRYING TENS (3)

$$\begin{array}{r} 101 \\ + - \\ \hline \end{array}$$

$$\begin{array}{r} 150 \\ + - \\ \hline \end{array}$$

$$\begin{array}{r} 103 \\ + - \\ \hline \end{array}$$



One snowy winter the children fed the birds in the school playground.

$$\begin{array}{r} 183 \\ ++ \\ \hline \end{array}$$

$$\begin{array}{r} 106 \\ - + \\ \hline \end{array}$$

$$\begin{array}{r} 154 \\ ++ \\ \hline \end{array}$$

A

85 pigeons and
65 starlings came
to eat. In all,
how many birds
came to eat?



$$\begin{array}{r} 97 \\ - + \\ \hline \end{array}$$

$$\begin{array}{r} 173 \\ + - \\ \hline \end{array}$$

$$\begin{array}{r} 137 \\ -- \\ \hline \end{array}$$

B

$$\begin{array}{r} 1 \\ 85 \\ + 65 \\ \hline 150 \end{array}$$

Add the ONES: $5 + 5 = 10$, or 1 TEN and 0 ONES.

Write 0 in ONES place and carry 1 TEN.

Add the TENS: $1 + 8 = 9$; $9 + 6 = 15$, or 1 HUNDRED and 5 TENS.

Write 5 in TENS place and 1 in HUNDREDS place.

Altogether, 150 birds came to eat.

$$\begin{array}{r} 161 \\ -- \\ \hline \end{array}$$

$$\begin{array}{r} 126 \\ + - \\ \hline \end{array}$$

$$\begin{array}{r} 79 \\ ++ \\ \hline \end{array}$$

C

The birds ate 68 bags of
cracked corn one week and
37 the next. How many
bags of corn did they eat
in those two weeks?



$$\begin{array}{r} 142 \\ + - \\ \hline \end{array}$$

$$\begin{array}{r} 125 \\ - + \\ \hline \end{array}$$

$$\begin{array}{r} 144 \\ -- \\ \hline \end{array}$$

D

$$\begin{array}{r} 1 \\ 68 \\ + 37 \\ \hline 105 \end{array}$$

Add the ONES: $8 + 7 = 15$, or 1 TEN and 5 ONES.

Write 5 in ONES place and carry 1 TEN.

Add the TENS: $1 + 6 = 7$; $7 + 3 = 10$, or 1 HUNDRED and 0 TENS.

Write 0 in TENS place and 1 in HUNDREDS place.

The sum: 105 bags of corn.

This page is for study only. Study the panels above as you look at the examples on page 32.
DO NOT write through the windows on this page.

ADD:

$$\begin{array}{r} 283 \\ 253 \\ \hline \end{array}$$

▲

 $60 + 90 = \boxed{}$

$$\begin{array}{r} 550 \\ 154 \\ \hline \end{array}$$

▲

 $\boxed{} + 20 = 100$

$$\begin{array}{r} 450 \\ 271 \\ \hline \end{array}$$

▲

 $80 + \boxed{} = 110$

$$\begin{array}{r} 285 \\ 184 \\ \hline \end{array}$$

▲

 $(60 + 20) + \boxed{} = 100$

$$\begin{array}{r} 193 \\ 534 \\ \hline \end{array}$$

▲

 $80 + \boxed{} = 160$

$$\begin{array}{r} 279 \\ 640 \\ \hline \end{array}$$

▲

 $\boxed{} + 200 = 242$

$$\begin{array}{r} 773 \\ 155 \\ \hline \end{array}$$

▲

 $(40 + 20) + (2 + 7) = \boxed{}$

$$\begin{array}{r} 194 \\ 224 \\ \hline \end{array}$$

▲

 $(70 + 10) + (5 + 3) = \boxed{}$

$$\begin{array}{r} 495 \\ 381 \\ \hline \end{array}$$

▲

 $(80 + 10) + (3 + 6) = \boxed{}$

$$\begin{array}{r} 582 \\ 260 \\ \hline \end{array}$$

▲

 $(20 + 30) + \boxed{} = 150$

$$\begin{array}{r} 183 \\ 494 \\ \hline \end{array}$$

▲

 $(30 + 50) + 70 = \boxed{}$

$$\begin{array}{r} 386 \\ 363 \\ \hline \end{array}$$

▲

 $(40 + 50) + \boxed{} = 150$

$$\begin{array}{r} 682 \\ 283 \\ \hline \end{array}$$

▲

 $(40 + \boxed{}) + 100 = 150$

$$\begin{array}{r} 694 \\ 172 \\ \hline \end{array}$$

▲

 $(40 + 40) + 70 = \boxed{}$

$$\begin{array}{r} 395 \\ 120 \\ \hline \end{array}$$

▲

 $(70 + 80) + \boxed{} = 150$

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 32. See if your answers are the same as the blue numerals in the windows.

CARRYING HUNDREDS

A



Mr. Peters had
275 red flowers
and 253 blue flowers.
How many flowers
did he have in all?

B

$$\begin{array}{r}
 275 = 200 + 70 + 5 \\
 +253 = 200 + 50 + 3 \\
 \hline
 400 + 120 + 8 = 400 + (100 + 20) + 8 \\
 = (400 + 100) + 20 + 8 \\
 = 500 + 20 + 8 = 528
 \end{array}$$

Here is one way
to work the example.
Panels C, D, and E, below,
show a shorter way.

C

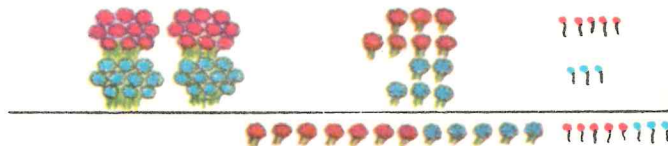
$$\begin{array}{r}
 275 \\
 +253 \\
 \hline
 8
 \end{array}$$

Step 1

Add the ONES first: $5 + 3 = 8$

Write 8 in ONES place.

Step 2

Add the TENS: $7 + 5 = 12$ 

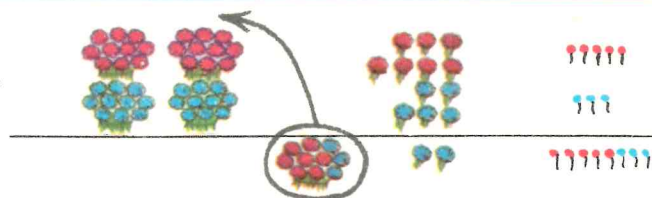
D

$$\begin{array}{r}
 1 \\
 275 \\
 +253 \\
 \hline
 28
 \end{array}$$

Step 3

12 TENS = 1 HUNDRED and 2 TENS.

Write 2 in TENS place
and carry 1 HUNDRED.
(Remember the HUNDRED.)



E

$$\begin{array}{r}
 1 \\
 275 \\
 +253 \\
 \hline
 528
 \end{array}$$

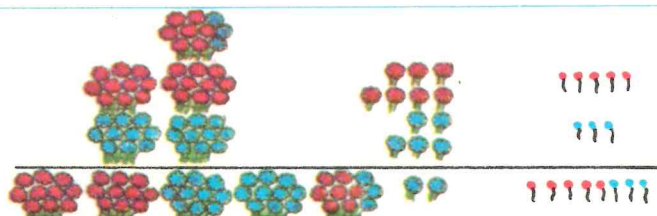
Step 4

Add the HUNDREDS:

 $1 + 2 = 3$; $3 + 2 = 5$

Write 5 in HUNDREDS place.

The sum: 528 flowers.



This page is for study only. Study the panels above as you look at the examples on page 34.

ADDING DOLLARS AND CENTS

This page is for study only. Study the panels below as you look at the examples on page 37.

A

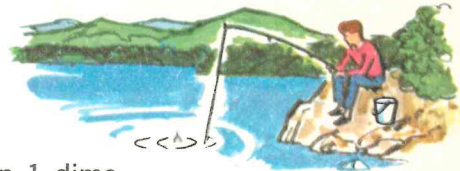
Before Jim went to the lake he bought some things:

A line **53¢** = 5 **dimes** (tens) and 3 **cents** (ones).

Hooks **14¢** = 1 dime (ten) and 4 cents (ones).

TOTAL **67¢** = 6 dimes (tens) and 7 cents (ones).

¢ is the **cent sign**. 1¢ means 1 cent. There are 10 cents in 1 dime.



B

The next day Jim bought some things he needed in school:

Ball-point pen **89¢**

Tablet **25¢**

114¢

Another way to write 89¢ is \$.89. \$ is the **dollar sign**.

There are 100 cents in 1 dollar. There are 10 dimes in 1 dollar.

114¢ may be written \$1.14. The **point .** is read **and**.

The point separates the dollars from the cents.

C

\$1.23 means 1 dollar and 23 cents.

.47 means no dollars and 47 cents.

2.06 means 2 dollars and 6 cents.

\$3.76 If there is a \$ and . in the example, put a \$ and . in the sum.
They must go right under the \$ and . in the example.

D

\$3.76

→ 300 cents, 30 dimes, or 3 dollars.
→ 70 cents or 7 dimes.
→ 6 cents.

376

→ 300 ones, 30 tens, or 3 hundreds.
→ 70 ones or 7 tens.
→ 6 ones.

E

Jim bought a hamburger, milk, and a candy bar for lunch. How much money did he spend?



He spent 40 cents.

\$.23
.12
.05
\$.40

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

FIND THE SUMS:

$$\begin{array}{r} \$2.82 \\ 4.06 \\ \hline \end{array}$$
 \blacktriangle $\$1.00 + 67\text{¢} = \boxed{}$

$$\begin{array}{r} \$5.24 \\ 2.29 \\ \hline \end{array}$$
 \blacktriangle $51\text{¢} + \boxed{} = 60\text{¢}$

$$\begin{array}{r} \$2.69 \\ 1.50 \\ \hline \end{array}$$
 \blacktriangle $88\text{¢} + 2\text{¢} = \boxed{}$

$$\begin{array}{r} \$3.07 \\ 3.09 \\ \hline \end{array}$$
 \blacktriangle $\$1.20 + 30\text{¢} = \boxed{}$

$$\begin{array}{r} \$5.96 \\ .53 \\ \hline \end{array}$$
 \blacktriangle $50\text{¢} + 50\text{¢} = \boxed{}$

$$\begin{array}{r} \$6.17 \\ 2.54 \\ \hline \end{array}$$
 \blacktriangle $60\text{¢} + 50\text{¢} = \boxed{}$

$$\begin{array}{r} \$2.33 \\ 3.49 \\ \hline \end{array}$$
 \blacktriangle $\boxed{} + 40\text{¢} = \1.40

$$\begin{array}{r} \$1.80 \\ 2.31 \\ \hline \end{array}$$
 \blacktriangle $\$1.40 + \boxed{} = \1.60

$$\begin{array}{r} \$.40 \\ .52 \\ \hline 8.90 \end{array}$$
 \blacktriangle $\$2.00 + \boxed{} = \2.05

$$\begin{array}{r} \$.72 \\ 8.27 \\ \hline \end{array}$$
 \blacktriangle $75\text{¢} + 25\text{¢} = \boxed{}$

$$\begin{array}{r} \$.12 \\ 3.69 \\ 4.16 \\ \hline \end{array}$$
 \blacktriangle $80\text{¢} + \boxed{} = \1.00

$$\begin{array}{r} \$1.70 \\ 4.84 \\ \hline \end{array}$$
 \blacktriangle $10\text{¢} + \boxed{} = \1.00

$$\begin{array}{r} 61\text{¢} \\ 69\text{¢} \\ 67\text{¢} \\ \hline \end{array}$$
 \blacktriangle $90\text{¢} + 60\text{¢} = \boxed{}$

$$\begin{array}{r} \$3.65 \\ .74 \\ \hline \end{array}$$
 \blacktriangle $\$1.50 + \boxed{} = \1.75

$$\begin{array}{r} \$4.19 \\ 3.57 \\ .06 \\ \hline \end{array}$$
 \blacktriangle $\$2.50 + \boxed{} = \3.00

3 — To check your work, put your paper or Magic Slate under page 39. See if your answers are the same as the red numerals in the windows.

CARRYING TWICE

This page is for study only. Study the panels below as you look at the examples on page 39.

A

Joe collects seashells.
He has 356 shells in one jar
and 479 shells in another.
How many shells
does he have altogether?



B

$$\begin{array}{r} 356 = 300 + 50 + 6 \\ + 479 = 400 + 70 + 9 \\ \hline \end{array}$$

$$\begin{array}{l} 700 + 120 + 15 = 700 + (100 + 20) + (10 + 5) \\ = (700 + 100) + (20 + 10) + 5 \\ = 800 + 30 + 5 = 835 \end{array}$$

Panel C will show
the short way
to do this example.

C

$$\begin{array}{r} \text{1 1} \\ 356 \\ + 479 \\ \hline 835 \end{array}$$

Add the ONES: $6 + 9 = 15$ Write 5 in ONES place and carry 1 TEN.
Add the TENS: $1 + 5 = 6$; $6 + 7 = 13$ Write 3 in TENS place
and carry 1 HUNDRED.
Add the HUNDREDS: $1 + 3 = 4$; $4 + 4 = 8$ Write 8 in HUNDREDS place.
Joe has 835 seashells altogether.

D



$$\begin{array}{r} \text{2} \\ 298 \\ 166 \\ + 298 \\ \hline 562 \end{array}$$

Add the ONES: $8 + 6 = 14$; $14 + 8 = 22$ Write 2 in ONES place and
carry 2 TENS. Add the TENS: $2 + 9 = 11$; $11 + 6 = 17$; $17 + 9 = 26$
Write 6 in TENS place and carry 2 HUNDREDS.
Add the HUNDREDS: $2 + 1 = 3$; $3 + 2 = 5$ Write 5 in HUNDREDS place.

E

Find the missing addends

$7 + \square + 6 + 8 = 29$
Add: $7 + 6 = 13$; $13 + 8 = 21$
Think: $1 + 8 = 9$, so $21 + 8 = 29$
The missing addend is 8.

$4 + 9 = (3 + 7) + \square$
Add: $(3 + 7) = 10$ Add: $4 + 9 = 13$
Think: $10 + 3 = 13$, so the missing addend is 3.

DO NOT write through the windows on this page.

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

ADD:

	288
	<u>367</u>
<div></div>	
	7 + 4 + 7 + 4 = <div></div>

\$6.88
\$1.67

	259
	<u>165</u>
<div></div>	
	5 + <div></div> + 0 + 9 = 20

\$7.53
\$.09

	545
	<u>278</u>
<div></div>	
	6 + 6 + <div></div> + 0 = 21

\$4.19
\$.90

	546
	<u>367</u>
<div></div>	
	<div></div> + 4 = (3 + 7 + 1)

\$6.16
\$1.50

	274
	<u>649</u>
<div></div>	
	7 + 3 + <div></div> + 6 = 20

\$6.49
\$1.00

	465
	<u>189</u>
<div></div>	
	8 + 4 + 8 + <div></div> = 30

\$8.71
\$1.10

	676
	<u>128</u>
<div></div>	
	4 + 7 + 6 + <div></div> = 30

\$5.82
\$1.00

	169
	<u>232</u>
<div></div>	
	8 + 3 = (1 + 5) + <div></div>

\$4.11
\$.20

	566
	<u>144</u>
<div></div>	
	10 + 3 = (4 + 0) + <div></div>

\$9.82
\$.05

	266
	<u>199</u>
<div></div>	
	6 + <div></div> + 7 + 8 = 25

\$8.99
\$1.00

	355
	<u>165</u>
<div></div>	
	9 + 6 + <div></div> + 8 = 30

\$7.97
\$.20

	189
	<u>134</u>
<div></div>	
	<div></div> + 3 = (1 + 6 + 0 + 5)

\$6.54
\$.90

	368
	59
	<u>477</u>
<div></div>	
	9 + 2 + <div></div> + 7 = 18

\$1.97
\$1.50

	547
	286
	<u>99</u>
<div></div>	
	8 + 6 + 10 + <div></div> = 30

\$4.39
\$.25

	75
	398
	<u>498</u>
<div></div>	
	9 + <div></div> + 10 + 30 = 50

\$7.82
\$.50

3 — To check your work, put your paper or Magic Slate under page 41. See if your answers are the same as the blue numerals in the windows.

NOTE: Pay no attention to the red numerals outside the boxes.

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

ADD:

30
17

95
68
39
98

▲
 $120 + 80 + 40 = \boxed{}$

50
37

16
79
69
49

▲
 $1200 + 800 + 400 = \boxed{}$

20
57

\$.49
.75
.80
9.07

▲
 $1545 = \boxed{} + 500 + 45$

10
16

5000
2000

▲
 $2115 = 2000 + \boxed{} + 15$

53
36

877
889
675

▲
 $1960 = \boxed{} + 900 + 60$

70
56

6¢
43¢
9¢
67¢

▲
 $2350 = \boxed{} + 300 + 50$

46
18

94
75
787
959

▲
 $2675 = \boxed{} + 600 + 75$

40
38

\$5.29
.61
6.47
2.98

▲
 $2890 = 2000 + 800 + \boxed{}$

36
58

49
98
97
74

▲
 $3232 = 3000 + \boxed{} + 32$

4
17

2689
2959

▲
 $3440 = 3000 + 400 + \boxed{}$

87
37

70¢
57¢
62¢
76¢

▲
 $3607 = 3000 + \boxed{} + 7$

8
57

985
202
47
30

▲
 $3909 = \boxed{} + 900 + 9$

30
18

648
185
889
389

▲
 $4040 = 4000 + \boxed{}$

70
38

5788
2426

▲
 $4580 = \boxed{} + 500 + 80$

14
58

629
4437
3097

▲
 $5000 = \boxed{} + 0 + 0$

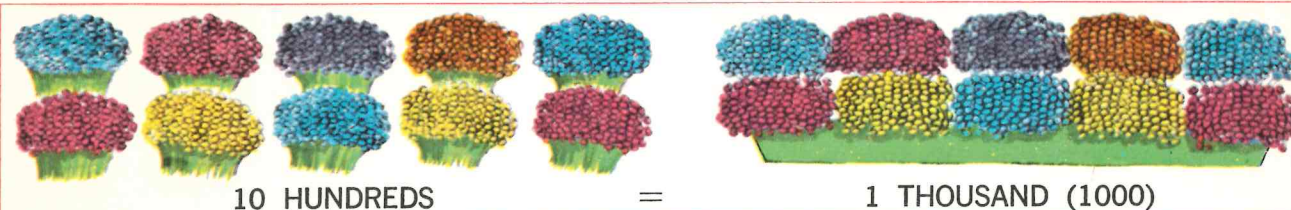
3 — To check your work, put your paper or Magic Slate under page 38. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

ADDITION: FOUR-DIGIT NUMERALS

This page is for study only. Study the panels below as you look at the examples on page 40.

A



$$\begin{array}{r} 655 \\ 22 \end{array}$$

$$\begin{array}{r} 424 \\ 6 \end{array}$$

$$\begin{array}{r} 823 \\ 9 \end{array}$$

B



$$\begin{array}{r} 913 \\ 7 \end{array}$$

$$\begin{array}{r} 923 \\ 4 \end{array}$$

$$\begin{array}{r} 654 \\ 10 \end{array}$$

C

Ben collects stamps. He has 549 stamps in one book, 2166 in another, and 4378 in a third. How many stamps does he have in all?

$$\begin{array}{r} 2 \\ 549 \\ 2166 \\ +4378 \\ \hline 3 \end{array}$$

Step 1

Add the ONES:
 $9 + 6 = 15$; $15 + 8 = 23$
Write 3 in ONES place
and carry 2 TENS.

$$\begin{array}{r} 804 \\ 13 \end{array}$$

$$\begin{array}{r} 401 \\ 5 \end{array}$$

$$\begin{array}{r} 710 \\ 9 \end{array}$$

D

$$\begin{array}{r} 12 \\ 1549 \\ 2166 \\ +4378 \\ \hline 7093 \end{array}$$

Step 2

Add the TENS: $2 + 4 = 6$; $6 + 6 = 12$; $12 + 7 = 19$ Write 9 in TENS place and carry 1 HUNDRED. Add the HUNDREDS: $1 + 5 = 6$; $6 + 1 = 7$; $7 + 3 = 10$ Write 0 in HUNDREDS place and carry 1 THOUSAND. Add the THOUSANDS: $1 + 2 = 3$; $3 + 4 = 7$ Write 7 in THOUSANDS place. Ben has seven thousand and ninety-three stamps.

$$\begin{array}{r} 465 \\ 4 \end{array}$$

$$\begin{array}{r} 520 \\ 7 \end{array}$$

$$\begin{array}{r} 323 \\ 9 \end{array}$$

E

$$\begin{array}{r} 2 \\ 69 \\ 57 \\ 248 \\ +980 \\ \hline 1154 \end{array}$$

Add the ONES: $9 + 7 = 16$; $16 + 8 = 24$; $24 + 0 = 24$ Write 4 in ONES place and carry 2 TENS. Add the TENS: $2 + 6 = 8$; $8 + 5 = 13$; $13 + 4 = 17$; $17 + 8 = 25$ Write 5 in TENS place and carry 2 HUNDREDS. Add the HUNDREDS: $2 + 9 = 11$ Write 1 in HUNDREDS place and 1 in THOUSANDS place.



$$\begin{array}{r} 904 \\ 0 \end{array}$$

$$\begin{array}{r} 932 \\ 6 \end{array}$$

$$\begin{array}{r} 971 \\ 1 \end{array}$$

DO NOT write through the windows on this page.

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

SUBTRACT:

<div> <div>12-5</div> <div> $\begin{array}{r} 44 \\ 14 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 22-5=\square \\ 32-5=27 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 80 \\ 30 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 42-5=\square \\ 52-5=47 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 41 \\ 21 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 62-5=\square \\ 72-5=67 \end{array}$ </div> </div>
<div> <div>13-7</div> <div> $\begin{array}{r} 66 \\ 56 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 23-7=\square \\ 33-7=26 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 75 \\ 22 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 43-7=\square \\ 53-7=46 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 87 \\ 17 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 63-7=\square \\ 73-7=66 \end{array}$ </div> </div>
<div> <div>14-6</div> <div> $\begin{array}{r} 56 \\ 10 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 24-6=\square \\ 34-6=28 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 85 \\ 45 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 44-6=\square \\ 54-6=48 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 79 \\ 43 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 64-6=\square \\ 74-6=68 \end{array}$ </div> </div>
<div> <div>15-8</div> <div> $\begin{array}{r} 37 \\ 33 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 25-8=\square \\ 35-8=27 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 97 \\ 10 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 45-8=\square \\ 55-8=47 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 88 \\ 80 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 65-8=\square \\ 75-8=67 \end{array}$ </div> </div>
<div> <div>17-9</div> <div> $\begin{array}{r} 89 \\ 59 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 27-9=\square \\ 37-9=28 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 92 \\ 22 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 47-9=\square \\ 57-9=48 \end{array}$ </div> </div>	<div> <div></div> <div> $\begin{array}{r} 29 \\ 15 \\ \hline \end{array}$ <div></div> $\begin{array}{r} 67-9=\square \\ 77-9=68 \end{array}$ </div> </div>

3 — To check your work, put your paper or Magic Slate under page 40. See if your answers are the same as the blue numerals in the windows.

SUBTRACTING WITH ZEROS AND BY ENDINGS

This page is for study only. Study the panels below as you look at the examples on page 42.

A

Tim had 86¢.
He spent 50¢.
How much money
did he have left?



$$\begin{array}{r} 86\text{¢} \\ -50\text{¢} \\ \hline 36\text{¢} \end{array}$$

Subtract the ONES first: $6 - 0 = 6$
Write 6 in ONES place.
Subtract the TENS: $8 - 5 = 3$
Write 3 in TENS place.
Tim had 36¢ left.

B

June had 70¢.
She spent 30¢.
How much money
did she have left?



$$\begin{array}{r} 70\text{¢} \\ -30\text{¢} \\ \hline 40\text{¢} \end{array}$$

Subtract the ONES first: $0 - 0 = 0$
Write 0 in ONES place.
Subtract the TENS: $7 - 3 = 4$
Write 4 in TENS place.
June had 40¢ left.

C



$$\begin{array}{r} 55 \\ -25 \\ \hline 30 \end{array}$$

Subtract the ONES: $5 - 5 = 0$.
Write 0 in ONES place.
Subtract the TENS: $5 - 2 = 3$
Write 3 in TENS place.



$$\begin{array}{r} 46 \\ -43 \\ \hline 3 \end{array}$$

Subtract the ONES: $6 - 3 = 3$
Write 3 in ONES place.
Subtract the TENS: $4 - 4 = 0$
We need not write 0 in TENS place.

D

RULES

E

1. When you subtract zero from a number, the difference is that number. $5 - 0 = 5$
2. When you subtract a number from itself, the difference is zero. $5 - 5 = 0$
3. When you subtract zero from zero, the difference is zero. $0 - 0 = 0$

F

11	21	31	41	51	61	71	81	91
-6	-6	-6	-6	-6	-6	-6	-6	-6
5	15	25	35	45	55	65	75	85

If you subtract 6 from any number
ending in 1, your remainder will end in 5.

18	28	38	48	58	68	78	88	98
-9	-9	-9	-9	-9	-9	-9	-9	-9
9	19	29	39	49	59	69	79	89

If you subtract 9 from any number
ending in 8, your remainder will end in 9.

G

THREE-DIGIT MINUENDS

This page is for study only. Study the panels below as you look at the examples on page 45.

A



Jenny had 125 picture postcards.
She gave 50 of them to Lucy.
How many postcards
did Jenny have left?

B



125 = 1 HUNDRED, 2 TENS, and 5 ONES



125 = 12 TENS and 5 ONES

$$\begin{array}{r} 125 \\ - 50 \\ \hline 75 \end{array}$$

Subtract the ONES: $5 - 0 = 5$
Write 5 in ONES place.
Subtract the TENS: $12 - 5 = 7$
Write 7 in TENS place.
Jenny had 75 postcards left.

C

Ted had 126 tadpoles.
He gave some to Mark
and had 61 left. How many
tadpoles did Ted give to Mark?



D

$$\begin{array}{r} 126 \\ - \quad \quad \\ \hline 61 \end{array}$$

ONES **Think:** $6 - 5 = 1$, so the missing ONES digit is **5**.
TENS **Think:** 1 HUNDRED and 2 TENS = 12 TENS; $12 - 6 = 6$
The missing TENS digit is **6**.
Ted gave **65** tadpoles to Mark.

$$\begin{array}{r} 126 \\ - 65 \\ \hline 61 \end{array}$$

E




$$\begin{array}{r} 135 \\ - 62 \\ \hline 73 \end{array}$$


ONES **Think:** $5 - 3 = 2$, so the missing ONES digit is **3**.
TENS **Think:** **13** - 6 = 7, so the missing TENS digit is **13**
(13 TENS = 1 HUNDRED and 3 TENS).

$$\begin{array}{r} 135 \\ - 62 \\ \hline 73 \end{array}$$

a

$$\begin{array}{r} 115 \\ -34 \\ \hline \end{array}$$

a 


b 


b

$$\begin{array}{r} 113 \\ -\text{[grid]} \\ \hline 71 \end{array}$$

a

$$\begin{array}{r} 120 \\ -70 \\ \hline \end{array}$$

a 


b 


b

$$\begin{array}{r} 117 \\ -\text{[grid]} \\ \hline 21 \end{array}$$

a

$$\begin{array}{r} 107 \\ -75 \\ \hline \end{array}$$

a 

b 


b


$$\begin{array}{r} 11\text{[grid]} \\ -\text{[grid]}1 \\ \hline 58 \end{array}$$

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a** and **b**. The red numerals in the windows are the right answers.

a

$$\begin{array}{r} 118 \\ -76 \\ \hline \end{array}$$

a 


b 


b

$$\begin{array}{r} \text{[grid]}8 \\ -8\text{[grid]} \\ \hline 35 \end{array}$$

a

$$\begin{array}{r} 109 \\ -47 \\ \hline \end{array}$$

a 


b 


b

$$\begin{array}{r} 118 \\ -\text{[grid]} \\ \hline 67 \end{array}$$

a



$$\begin{array}{r} 118 \\ -40 \\ \hline \end{array}$$

a 

b 


b


$$\begin{array}{r} 1\text{[grid]}4 \\ -8\text{[grid]} \\ \hline 22 \end{array}$$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the  points, and for **b** where the  points.

a

$$\begin{array}{r} 106 \\ -85 \\ \hline \end{array}$$

a 


b 


b

$$\begin{array}{r} 11\text{[grid]} \\ -\text{[grid]}1 \\ \hline 42 \end{array}$$

a

$$\begin{array}{r} 136 \\ -53 \\ \hline \end{array}$$

a 

b 

b

$$\begin{array}{r} \text{[grid]}9 \\ -3\text{[grid]} \\ \hline 87 \end{array}$$

3 — To check your work, put your paper or Magic Slate under page 47. See if your answers are the same as the red numerals in the windows.

MIXED ADDITION AND SUBTRACTION: REVIEW

This page is for study only. Study the panels below as you look at the examples on page 47.

	70		89		66
	15		11		18
	25		21		28
	15		11		38

A

Mrs. Jacobs planted cabbages in rows of 10.
On Monday, she planted 8 rows and a few more plants.
On Tuesday, she finished planting some more rows.
Later that day she planted 9 more cabbages.
In all, she planted 135 cabbages. Exactly how many
cabbages did she plant on Monday? On Tuesday?



$$\begin{array}{r} 8 \text{ } \square \square \\ + \text{ } \square \square 9 \\ \hline 135 \end{array}$$

ONES **Think:** $6 + 9 = 15$, so the missing ONES digit is **6**.
TENS (Remember, we have 1 TEN to carry from the 15 ONES.)
Think: $1 + 8 = 9$; $9 + 4 = 13$ The missing TENS digit is **4**.
Mrs. Jacobs planted **86** cabbages on Monday, and **49** on Tuesday.

$$\begin{array}{r} 86 \\ + 49 \\ \hline 135 \end{array}$$

	66		84		80
	48		18		19
	48		28		29
	38		18		29

B

Mrs. Jacobs had just over 100 tomatoes.
She sold some in bags of 10, and she
gave 2 tomatoes to Peter. She had 21
tomatoes left. Exactly how many tomatoes
did she have to start with? How many
bags of 10 did she sell?



$$\begin{array}{r} 10 \text{ } \square \square \\ - \text{ } \square \square 2 \\ \hline 21 \end{array}$$

ONES **Think:** $3 - 2 = 1$, so the missing ONES digit is **3**.
TENS **Think:** $10 - 8 = 2$, so the missing TENS digit is **8**.
Mrs. Jacobs had **103** tomatoes to start with.
She sold **8** bags of 10 tomatoes.

$$\begin{array}{r} 103 \\ - 82 \\ \hline 21 \end{array}$$

	82		90
	14		15
	19		35
	44		19

C




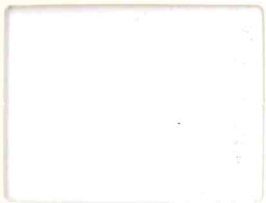
$$\begin{array}{r} 153 \\ - 63 \\ \hline 90 \end{array}$$


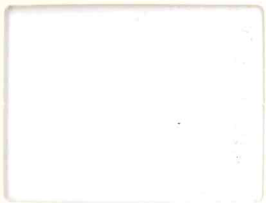
Subtract the ONES: $3 - 3 = 0$
Write 0 in ONES place.
Subtract the TENS: (1 HUNDRED and 5 TENS = 15 TENS)
 $15 - 6 = 9$ Write 9 in TENS place.

DO NOT write through the windows on this page.

WATCH THE SIGNS:

a $\begin{array}{r} 139 \\ -82 \\ \hline \end{array}$



a  



b  

b $\begin{array}{r} \text{7} \\ +9\text{7} \\ \hline 125 \end{array}$

$\begin{array}{r} 81 \\ 113 \\ -42 \\ \hline 71 \end{array}$

a $\begin{array}{r} 147 \\ -54 \\ \hline \end{array}$



a  



b  

b $\begin{array}{r} 10\text{7} \\ -\text{7}5 \\ \hline 32 \end{array}$

$\begin{array}{r} 50 \\ 117 \\ -96 \\ \hline 21 \end{array}$

a $\begin{array}{r} 109 \\ -66 \\ \hline \end{array}$

a  



b  



b $\begin{array}{r} \text{4} \\ -6\text{7} \\ \hline 41 \end{array}$

$\begin{array}{r} 32 \\ 119 \\ -61 \\ \hline 58 \end{array}$

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a** and **b**. The blue numerals in the windows are the right answers.

a $\begin{array}{r} 135 \\ -43 \\ \hline \end{array}$


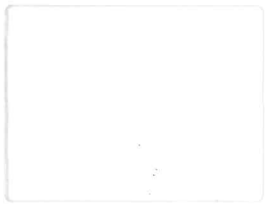
a  


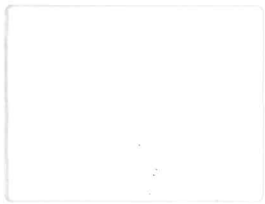
b  

b $\begin{array}{r} \text{7} \\ +45 \\ \hline 142 \end{array}$

$\begin{array}{r} 42 \\ 118 \\ -83 \\ \hline 35 \end{array}$

a $\begin{array}{r} 158 \\ -65 \\ \hline \end{array}$


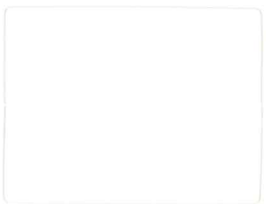
a  


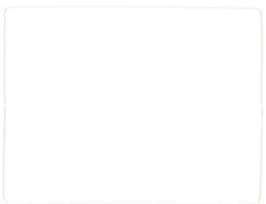
b  

b $\begin{array}{r} \text{8} \\ +4\text{7} \\ \hline 121 \end{array}$

$\begin{array}{r} 62 \\ 118 \\ -51 \\ \hline 67 \end{array}$



a $\begin{array}{r} 179 \\ -84 \\ \hline \end{array}$

a  



b  



b $\begin{array}{r} 10\text{7} \\ -\text{7}1 \\ \hline 70 \end{array}$

$\begin{array}{r} 78 \\ 104 \\ -82 \\ \hline 22 \end{array}$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the  points, and for **b** where the  points.

a $\begin{array}{r} 136 \\ -62 \\ \hline \end{array}$



a  



b  

b $\begin{array}{r} \text{5} \\ -2\text{7} \\ \hline 91 \end{array}$

$\begin{array}{r} 21 \\ 113 \\ -71 \\ \hline 42 \end{array}$

a $\begin{array}{r} 108 \\ -52 \\ \hline \end{array}$

a  

b  

b $\begin{array}{r} 9\text{7} \\ 58 \\ \text{7}9 \\ \hline 220 \end{array}$

$\begin{array}{r} 83 \\ 119 \\ -32 \\ \hline 87 \end{array}$

3 — To check your work, put your paper or Magic Slate under page 49. See if your answers are the same as the blue numerals in the windows.

NOTE: Pay no attention to the red numerals outside the boxes.

a $\begin{array}{r} 106 \\ 36 \\ \hline \end{array}$

90
5
3
2

a
b
c
d

10-5

b $20-5=$

c $30-5=$

d $30-15=$

a $\begin{array}{r} 159 \\ 70 \\ \hline \end{array}$

53
3
9
20

a
b
c
d

10-9

b $20-9=$

c $30-9=$

d $30-19=$

a $\begin{array}{r} 128 \\ 62 \\ \hline \end{array}$

64
9
50
2

a
b
c
d

11-3

b $21-3=$

c $31-3=$

d $41-3=$

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a**, **b**, **c**, and **d**. The red numerals in the windows are the right answers.

a $\begin{array}{r} 117 \\ 51 \\ \hline \end{array}$

11
2
11
10

a
b
c
d

11-3

b $51-3=$

c $61-13=$

d $61-23=$

a $\begin{array}{r} 128 \\ 44 \\ \hline \end{array}$

90
6
20
7

a
b
c
d

15-7

b $25-7=$

c $35-7=$

d $35-17=$

a $\begin{array}{r} 178 \\ 98 \\ \hline \end{array}$

64
14
10
7

a
b
c
d

17-8

b $27-8=$

c $37-8=$

d $47-18=$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the **a** points; for **b** where the **b** points, etc.

a $\begin{array}{r} 106 \\ 24 \\ \hline \end{array}$

50
15
15
7

a
b
c
d

13-9

b $23-9=$

c $33-9=$

d $53-9=$

a $\begin{array}{r} 107 \\ 17 \\ \hline \end{array}$

84
40
13
4

a
b
c
d

14-9

b $24-9=$

c $44-9=$

d $54-9=$

3 — To check your work, put your paper or Magic Slate under page 46. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

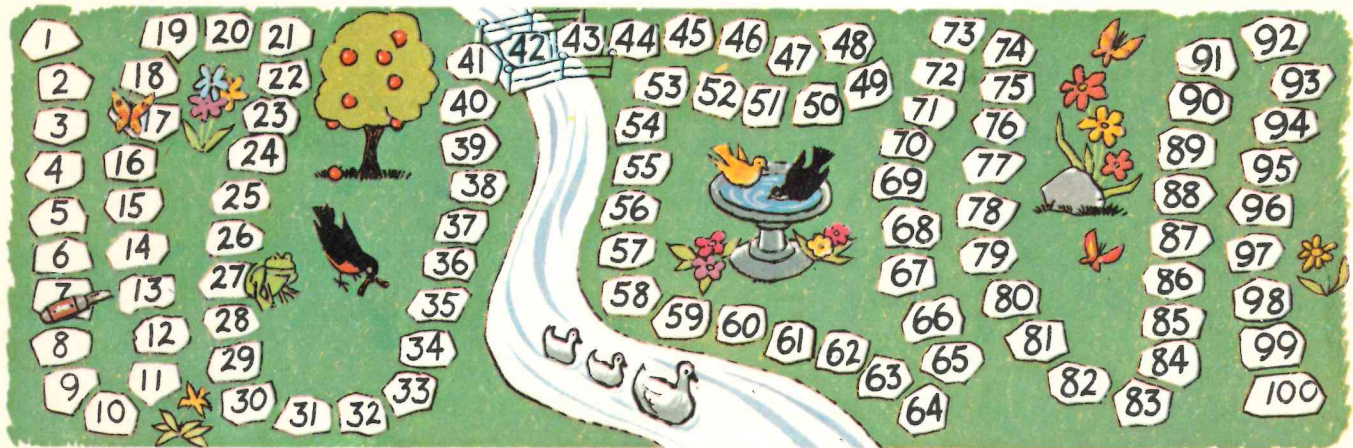
MORE SUBTRACTING BY ENDINGS

This page is for study only. Study the panels below as you look at the examples on page 48.
DO NOT write through the windows on this page.

$$\begin{array}{r} 57 \\ 27 \\ +98 \\ \hline 125 \end{array}$$

$$\begin{array}{r} 93 \\ 107 \\ -75 \\ \hline 32 \end{array}$$

$$\begin{array}{r} 43 \\ 104 \\ -63 \\ \hline 41 \end{array}$$



$$\begin{array}{r} 92 \\ 97 \\ +45 \\ \hline 142 \end{array}$$

$$\begin{array}{r} 93 \\ 78 \\ +43 \\ \hline 121 \end{array}$$

$$\begin{array}{r} 95 \\ 101 \\ -31 \\ \hline 70 \end{array}$$

A

Start at stone 16. Go back 9 stones and you will find a penknife on stone 7.

$$16 - 9 = 7$$

Start at stone 26. Go back 9 stones and you will find a butterfly on stone 17.

$$26 - 9 = 17$$

B

C

Start at stone 46. Go back 19 stones and you will find a frog on stone 27.

$$46 - 19 = 27$$

Start at stone 56. Jump over the stream to stone 37. Your jump saved you from moving 19 stones.

$$56 - 19 = 37$$

D

E

If you subtract any number ending in 9 from any number ending in 6, your remainder will end in 7.

$$\begin{array}{r} 74 \\ 115 \\ -24 \\ \hline 91 \end{array}$$

$$\begin{array}{r} 56 \\ 93 \\ 58 \\ 69 \\ \hline 220 \end{array}$$

F

10	20	30	40	50	60	70	80	90
-7	-7	-7	-7	-7	-7	-7	-7	-7
3	13	23	33	43	53	63	73	83

Look at the key fact.

If you subtract any number ending in 7 from any number ending in 0, your remainder will end in 3.

13	23	33	43	53	63	73	83	93
-8	-8	-8	-8	-8	-8	-8	-8	-8
5	15	25	35	45	55	65	75	85

Look at the key fact.

If you subtract any number ending in 8 from any number ending in 3, your remainder will end in 5.

G

a $\begin{array}{r} 164 \\ -74 \\ \hline \end{array}$

a
 b
 c
 d

$15 - 3 = 12$

b $(10 + \boxed{}) - 3 = 12$

c $10 + (5 - \boxed{}) = 12$

d $10 + \boxed{} = 12$

a $\begin{array}{r} 115 \\ -62 \\ \hline \end{array}$

a
 b
 c
 d

$29 - 3 = 26$

b $(20 + 9) - \boxed{} = 26$

c $20 + (\boxed{} - 3) = 26$

d $\boxed{} + 6 = 26$

a $\begin{array}{r} 97 \\ -33 \\ \hline \end{array}$

a
 b
 c
 d

$59 - 7 = 52$

b $(50 + \boxed{}) - 7 = 52$

c $\boxed{} + (9 - 7) = 52$

d $50 + \boxed{} = 52$

DIRECTIONS: 1 — Study the examples on this page. The examples are named **a**, **b**, **c**, and **d**. The blue numerals in the windows are the right answers.

a $\begin{array}{r} 109 \\ -98 \\ \hline \end{array}$

a
 b
 c
 d

$21 - 2 = 19$

b $(10 + 11) - \boxed{} = 19$

c $10 + (\boxed{} - 2) = 19$

d $\boxed{} + 9 = 19$

a $\begin{array}{r} 189 \\ -99 \\ \hline \end{array}$

a
 b
 c
 d

$33 - 6 = 27$

b $(20 + 13) - \boxed{} = 27$

c $\boxed{} + (13 - 6) = 27$

d $20 + \boxed{} = 27$

a $\begin{array}{r} 159 \\ -95 \\ \hline \end{array}$

a
 b
 c
 d

$24 - 7 = 17$

b $(10 + \boxed{}) - 7 = 17$

c $\boxed{} + (14 - 7) = 17$

d $10 + \boxed{} = 17$

2 — Put a piece of paper or a Magic Slate under this page. Write your answers through the windows where the arrows point. Write your answer for **a** where the points; for **b** where the points, etc.

a $\begin{array}{r} 105 \\ -55 \\ \hline \end{array}$

a
 b
 c
 d

$45 - 8 = 37$

b $(30 + \boxed{}) - 8 = 37$

c $30 + (\boxed{} - 8) = 37$

d $30 + \boxed{} = 37$

a $\begin{array}{r} 164 \\ -80 \\ \hline \end{array}$

a
 b
 c
 d

$53 - 9 = 44$

b $(\boxed{} + 13) - 9 = 44$

c $40 + (\boxed{} - 9) = 44$

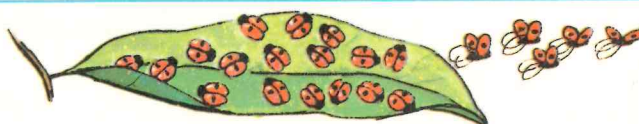
d $40 + \boxed{} = 44$

3 — To check your work, put your paper or Magic Slate under page 48. See if your answers are the same as the blue numerals in the windows.


SUBTRACTION: RENAMING AND REGROUPING


This page is for study only. Study the panels below as you look at the examples on page 50.


A There are 22 ladybugs. 5 are flying away. How many will be left?





$$\begin{array}{r} 22 \\ -5 \\ \hline ?? \end{array}$$


B  22 = 2 TENS and 2 ONES
(We cannot take 5 ONES from 2 ONES.)


C  22 = 1 TEN and 12 ONES
(We can take 5 ONES from 12 ONES.)

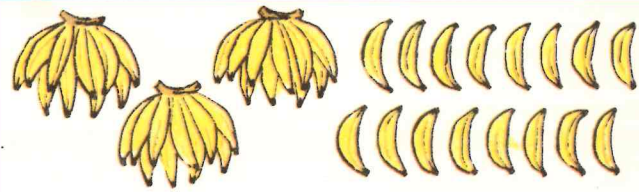
D $22 - 5 =$ 


Rename 22 $(10 + 12) - 5 =$ 


Regroup: put the 12 ONES with the 5 ONES $10 + (12 - 5) =$ 


$(12 - 5) = 7$ Add the TEN and the ONES we have left $10 + 7 =$ 


E  46 = 4 TENS and 6 ONES

F  46 = 3 TENS and 16 ONES

G $46 - 9 =$ 

We cannot take 9 ONES from 6 ONES. Rename 46 $(30 + 16) - 9 =$ 

Regroup: put the 16 ONES with the 9 ONES $30 + (16 - 9) =$ 

$(16 - 9) = 7$ Add the TENS and the ONES we have left $30 + 7 =$ 

H Find the missing numerals $64 - 8 = 56$ The missing numeral is:

Rename 64 $(50 + \text{base ten blocks}) - 8 = 56$ 14

Regroup: put the ONES together $50 + (14 - \text{base ten blocks}) = 56$ 8

$(14 - 8) = 6$ Add $50 + \text{base ten blocks} = 56$ 6

SUBTRACTION: CHANGING TENS (1)

This page is for study only. Study the panels below as you look at the examples on page 53.

A

Miss Grey had 62 pencils. She gave 37 of them to her class. She asked the class to find how many pencils she had left.



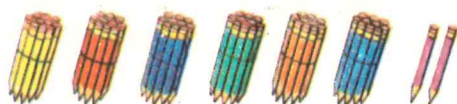
$$\begin{array}{r} 62 = 60 + 2 = 50 + 12 \\ -37 = 30 + 7 = 20 + 5 \\ \hline 25 \end{array}$$

Panels B, C, and D will show you a shorter way to work this example.

B

Step 1 We cannot subtract 7 ONES from 2 ONES, so we take 1 TEN and change it to 10 ONES.

$$\begin{array}{r} 512 \\ \cancel{6}2 \\ -37 \\ \hline \end{array}$$



62 = 6 TENS and 2 ONES



62 = 5 TENS and 12 ONES

C

Step 2

$$\begin{array}{r} 512 \\ \cancel{6}2 \\ -37 \\ \hline 5 \end{array}$$

Now we have 12 ONES.
We can subtract 7 from 12:
 $12 - 7 = 5$
Write 5 in ONES place.

Step 3

$$\begin{array}{r} 512 \\ \cancel{6}2 \\ -37 \\ \hline 25 \end{array}$$

Now subtract the TENS.
There are 5 TENS left.
 $5 - 3 = 2$
Write 2 in TENS place.
Miss Grey had 25 pencils left.

D

E



$$\begin{array}{r} 414 \\ \cancel{5}4 \\ -28 \\ \hline 26 \end{array}$$

ONES: We cannot subtract 8 from 4, so we change one of the TENS to 10 ONES. Now we have 14 ONES. $14 - 8 = 6$ Write 6 in ONES place.

TENS: We have 4 TENS left. $4 - 2 = 2$ Write 2 in TENS place.

F

Find the missing remainder

$$73 - 8 = \boxed{}$$

$$60 + (13 - 8) = \boxed{}$$

Step 1 We cannot subtract 8 ONES from 3 ONES, so we change one of the TENS to 10 ONES. Now we have 13 ONES.

Step 2 **Think:** $(13 - 8) = 5$ There are 6 TENS left.
 $60 + 5 = 65$, so $60 + (13 - 8) = 65$

NOTE: When you change a TEN to ONES in this book, you **cannot** write the numerals you changed. Just remember when you have changed a TEN.
(It's quicker that way, anyway!)

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 55. See if your answers are the same as the red numerals in the windows.

SUBTRACT:

$$\begin{array}{r} 90 \\ 27 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 20 - 1 = \boxed{} \\ 10 + (10 - 1) = \boxed{} \end{array}$$

$$\begin{array}{r} 71 \\ 44 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 20 - 6 = \boxed{} \\ 10 + (10 - 6) = \boxed{} \end{array}$$

$$\begin{array}{r} 80 \\ 49 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 21 - 3 = \boxed{} \\ 10 + (11 - 3) = \boxed{} \end{array}$$

$$\begin{array}{r} 72 \\ 35 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 23 - 4 = \boxed{} \\ 10 + (13 - 4) = \boxed{} \end{array}$$

$$\begin{array}{r} 94 \\ 56 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 30 - 6 = \boxed{} \\ 20 + (10 - 6) = \boxed{} \end{array}$$

$$\begin{array}{r} 94 \\ 77 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 43 - 8 = \boxed{} \\ 30 + (13 - 8) = \boxed{} \end{array}$$

$$\begin{array}{r} 98 \\ 54 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 45 - 9 = \boxed{} \\ 30 + (15 - 9) = \boxed{} \end{array}$$

$$\begin{array}{r} 96 \\ 69 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 54 - 9 = \boxed{} \\ 40 + (14 - 9) = \boxed{} \end{array}$$

$$\begin{array}{r} 83 \\ 57 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 63 - 6 = \boxed{} \\ 50 + (13 - 6) = \boxed{} \end{array}$$

$$\begin{array}{r} 65 \\ 38 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 72 - 9 = \boxed{} \\ 60 + (12 - 9) = \boxed{} \end{array}$$

$$\begin{array}{r} 98 \\ 43 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 81 - 7 = \boxed{} \\ 70 + (11 - 7) = \boxed{} \end{array}$$

$$\begin{array}{r} 84 \\ 29 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 85 - 7 = \boxed{} \\ 70 + (15 - 7) = \boxed{} \end{array}$$

$$\begin{array}{r} 74 \\ 28 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 90 - 7 = \boxed{} \\ 80 + (10 - 7) = \boxed{} \end{array}$$

$$\begin{array}{r} 83 \\ 69 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 93 - 9 = \boxed{} \\ 80 + (13 - 9) = \boxed{} \end{array}$$

$$\begin{array}{r} 61 \\ 28 \\ \hline \end{array}$$

$$\begin{array}{l} \blacktriangle 96 - 9 = \boxed{} \\ 80 + (16 - 9) = \boxed{} \end{array}$$

SUBTRACTION: CHANGING TENS (2)

This page is for study only. Study the panels below as you look at the examples on page 55.

Put your finger over the zeros. What do you see? Now look at Panels F and G on page 43.

A

$\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$	$\begin{array}{r} 21 \\ -6 \\ \hline 15 \end{array}$	$\begin{array}{r} 31 \\ -6 \\ \hline 25 \end{array}$	$\begin{array}{r} 41 \\ -6 \\ \hline 35 \end{array}$	$\begin{array}{r} 110 \\ -60 \\ \hline 50 \end{array}$	$\begin{array}{r} 210 \\ -60 \\ \hline 150 \end{array}$	$\begin{array}{r} 310 \\ -60 \\ \hline 250 \end{array}$	$\begin{array}{r} 410 \\ -60 \\ \hline 350 \end{array}$	$\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$	$\begin{array}{r} 180 \\ -90 \\ \hline 90 \end{array}$	$\begin{array}{r} 280 \\ -90 \\ \hline 190 \end{array}$	$\begin{array}{r} 380 \\ -90 \\ \hline 290 \end{array}$	$\begin{array}{r} 480 \\ -90 \\ \hline 390 \end{array}$	$\begin{array}{r} 580 \\ -90 \\ \hline 490 \end{array}$	$\begin{array}{r} 680 \\ -90 \\ \hline 590 \end{array}$	$\begin{array}{r} 980 \\ -90 \\ \hline 890 \end{array}$
---	--	--	--	--	---	---	---	---	--	---	---	---	---	---	---

We subtract TENS and HUNDREDS the same way we subtract ONES.

	$\begin{array}{r} 769 \\ 6 \end{array}$		$\begin{array}{r} 239 \\ 60 \end{array}$		$\begin{array}{r} 207 \\ 600 \end{array}$
--	---	--	--	--	---

B

Molly's father had 145 sheep and 86 lambs.
How many more sheep than lambs did he have?
(See Panel C.)



	$\begin{array}{r} 343 \\ 7 \end{array}$		$\begin{array}{r} 424 \\ 30 \end{array}$		$\begin{array}{r} 753 \\ 400 \end{array}$
--	---	--	--	--	---

C

$$\begin{array}{r} 315 \\ 145 \\ -86 \\ \hline 59 \end{array}$$

ONES: We cannot subtract 6 from 5, so we change one of the TENS to 10 ONES.

Now we have 15 ONES. $15 - 6 = 9$ Write 9 in ONES place.

TENS: We have 3 TENS left and 1 HUNDRED. 1 HUNDRED and 3 TENS = 13 TENS.

$13 - 8 = 5$ Write 5 in TENS place.

Molly's father had 59 more sheep than lambs.

	$\begin{array}{r} 212 \\ 5 \end{array}$		$\begin{array}{r} 229 \\ 90 \end{array}$		$\begin{array}{r} 649 \\ 400 \end{array}$
--	---	--	--	--	---

D

One day John and Molly counted 126 cars on the highway.
68 of them were Fords. How many were not Fords?
(See Panel E.)



	$\begin{array}{r} 509 \\ 6 \end{array}$		$\begin{array}{r} 324 \\ 60 \end{array}$		$\begin{array}{r} 435 \\ 800 \end{array}$
--	---	--	--	--	---

E

$$\begin{array}{r} 116 \\ 126 \\ -68 \\ \hline 58 \end{array}$$

ONES: We cannot subtract 8 from 6, so we change one of the TENS to 10 ONES.

Now we have 16 ONES. $16 - 8 = 8$ Write 8 in ONES place.

TENS: We have 1 TEN left and 1 HUNDRED. 1 HUNDRED and 1 TEN = 11 TENS.

$11 - 6 = 5$ Write 5 in TENS place.

Note: Remember that we changed a TEN. Do not write in this book.

	$\begin{array}{r} 536 \\ 6 \end{array}$		$\begin{array}{r} 144 \\ 30 \end{array}$		$\begin{array}{r} 835 \\ 300 \end{array}$
--	---	--	--	--	---

DO NOT write through the windows on this page.

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 57. See if your answers are the same as the blue numerals in the windows.

11-7

$$\begin{array}{r} 173 \\ - 96 \\ \hline \end{array}$$

$$110 - 70 = \boxed{}$$

63
19

$$\begin{array}{r} 122 \\ - 49 \\ \hline \end{array}$$

$$210 - 70 = \boxed{}$$

27
14

$$\begin{array}{r} 146 \\ - 58 \\ \hline \end{array}$$

$$310 - 70 = \boxed{}$$

31
18

13-5

$$\begin{array}{r} 126 \\ - 57 \\ \hline \end{array}$$

$$130 - 50 = \boxed{}$$

37
19

$$\begin{array}{r} 167 \\ - 79 \\ \hline \end{array}$$

$$230 - 50 = \boxed{}$$

38
24

$$\begin{array}{r} 124 \\ - 33 \\ \hline \end{array}$$

$$330 - 50 = \boxed{}$$

17
35

15-7

$$\begin{array}{r} 142 \\ - 78 \\ \hline \end{array}$$

$$150 - 70 = \boxed{}$$

44
36

$$\begin{array}{r} 138 \\ - 59 \\ \hline \end{array}$$

$$250 - 70 = \boxed{}$$

27
45

$$\begin{array}{r} 155 \\ - 88 \\ \hline \end{array}$$

$$350 - 70 = \boxed{}$$

26
57

16-9

$$\begin{array}{r} 153 \\ - 69 \\ \hline \end{array}$$

$$160 - 90 = \boxed{}$$

27
63

$$\begin{array}{r} 151 \\ - 79 \\ \hline \end{array}$$

$$260 - 90 = \boxed{}$$

55
74

$$\begin{array}{r} 137 \\ - 48 \\ \hline \end{array}$$

$$360 - 90 = \boxed{}$$

55
78

17-8

$$\begin{array}{r} 119 \\ - 34 \\ \hline \end{array}$$

$$170 - 80 = \boxed{}$$

46
83

$$\begin{array}{r} 133 \\ - 78 \\ \hline \end{array}$$

$$270 - 80 = \boxed{}$$

14
84

$$\begin{array}{r} 135 \\ - 69 \\ \hline \end{array}$$

$$370 - 80 = \boxed{}$$

33
87

NOTE: Pay no attention to the red numerals outside the boxes.

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 54. See if your answers are the same as the red numerals in the windows.

SUBTRACT:

<p>492 130</p> <p><u>991</u> <u>222</u></p> <p>▲</p> <p>8 — 2 = <input type="text"/></p>	<p>341 125</p> <p><u>584</u> <u>345</u></p> <p>▲</p> <p>80 — 20 = <input type="text"/></p>	<p>445 150</p> <p><u>935</u> <u>728</u></p> <p>▲</p> <p>800 — 200 = <input type="text"/></p>
<p>590 150</p> <p><u>671</u> <u>328</u></p> <p>▲</p> <p><input type="text"/> — 3 = 4</p>	<p>333 200</p> <p><u>970</u> <u>546</u></p> <p>▲</p> <p>70 — <input type="text"/> = 40</p>	<p>281 220</p> <p><u>892</u> <u>139</u></p> <p>▲</p> <p>700 — 300 = <input type="text"/></p>
<p>127 260</p> <p><u>870</u> <u>658</u></p> <p>▲</p> <p>9 — 4 = <input type="text"/></p>	<p>691 240</p> <p><u>432</u> <u>203</u></p> <p>▲</p> <p><input type="text"/> — 40 = 50</p>	<p>497 230</p> <p><u>965</u> <u>316</u></p> <p>▲</p> <p>900 — <input type="text"/> = 500</p>
<p>272 290</p> <p><u>743</u> <u>234</u></p> <p>▲</p> <p>8 — <input type="text"/> = 2</p>	<p>170 310</p> <p><u>982</u> <u>658</u></p> <p>▲</p> <p>80 — <input type="text"/> = 20</p>	<p>293 310</p> <p><u>861</u> <u>426</u></p> <p>▲</p> <p><input type="text"/> — 600 = 200</p>
<p>180 410</p> <p><u>990</u> <u>454</u></p> <p>▲</p> <p><input type="text"/> — 3 = 3</p>	<p>266 390</p> <p><u>381</u> <u>237</u></p> <p>▲</p> <p>60 — 30 = <input type="text"/></p>	<p>391 370</p> <p><u>944</u> <u>109</u></p> <p>▲</p> <p>600 — <input type="text"/> = 300</p>

SUBTRACTION: CHANGING TENS (3)

This page is for study only. Study the panels below as you look at the examples on page 56.

<p>(a)</p> $5 - 3 = 2$ $50 - 30 = 20$ $500 - 300 = 200$	<p>(b)</p> $7 - 2 = 5$ $70 - 20 = 50$ $700 - 200 = 500$	<p>(c)</p> $8 - 5 = 3$ $80 - 50 = 30$ $800 - 500 = 300$	<p>(d)</p> $9 - 6 = 3$ $90 - 60 = 30$ $900 - 600 = 300$
---	---	---	---

We subtract TENS and HUNDREDS the same way we subtract ONES.

77
40

73
140

88
240

B

Mary's father went on business. He flew 790 miles on Monday and 556 miles on Tuesday. How many more miles did he fly on Monday than on Tuesday?



69
80

88
180

91
280

C

$$\begin{array}{r} 8\ 10 \\ 7\ 00 \\ -5\ 56 \\ \hline 2\ 34 \end{array}$$

ONES: We cannot subtract 6 from 0, so we change one of the TENS to 10 ONES. Now we have 10 ONES. $10 - 6 = 4$ Write 4 in ONES place.

TENS: There are 8 TENS left. $8 - 5 = 3$ Write 3 in TENS place.

HUNDREDS: $7 - 5 = 2$ Write 2 in HUNDREDS place.

Mary's father flew 234 more miles on Monday than on Tuesday.

64
80

79
180

67
280

D

Tom started out one week to sell 235 magazines. By Wednesday night he had sold 108 copies. How many copies remained to be sold?



84
70

72
170

89
270

E

$$\begin{array}{r} 2\ 15 \\ 2\ 35 \\ -1\ 08 \\ \hline 1\ 27 \end{array}$$

ONES: We cannot subtract 8 from 5, so we change one of the TENS to 10 ONES. Now we have 15 ONES. $15 - 8 = 7$ Write 7 in ONES place.

TENS: There are 2 TENS left. $2 - 0 = 2$ Write 2 in TENS place.

HUNDREDS: $2 - 1 = 1$ Write 1 in HUNDREDS place.

Tom had 127 magazines left to sell.

85
90

55
190

66
290

DO NOT write through the windows on this page.

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

SUBTRACT:

$$\begin{array}{r} 836 \\ - 344 \\ \hline \end{array}$$
$$\begin{array}{l} 150 - 20 = \text{grid} \\ 100 + (50 - 20) = \text{grid} \end{array}$$

$$\begin{array}{r} 629 \\ - 288 \\ \hline \end{array}$$
$$\begin{array}{l} 175 - 50 = \text{grid} \\ 100 + (75 - 50) = \text{grid} \end{array}$$

$$\begin{array}{r} 918 \\ - 473 \\ \hline \end{array}$$
$$\begin{array}{l} 225 - 75 = \text{grid} \\ 100 + (125 - 75) = \text{grid} \end{array}$$

$$\begin{array}{r} 845 \\ - 255 \\ \hline \end{array}$$
$$\begin{array}{l} 250 - 100 = \text{grid} \\ 100 + (150 - 100) = \text{grid} \end{array}$$

$$\begin{array}{r} 829 \\ - 496 \\ \hline \end{array}$$
$$\begin{array}{l} 275 - 75 = \text{grid} \\ 200 + (75 - 75) = \text{grid} \end{array}$$

$$\begin{array}{r} 957 \\ - 676 \\ \hline \end{array}$$
$$\begin{array}{l} 300 - 80 = \text{grid} \\ 200 + (100 - 80) = \text{grid} \end{array}$$

$$\begin{array}{r} 517 \\ - 390 \\ \hline \end{array}$$
$$\begin{array}{l} 320 - 60 = \text{grid} \\ 200 + (120 - 60) = \text{grid} \end{array}$$

$$\begin{array}{r} 928 \\ - 237 \\ \hline \end{array}$$
$$\begin{array}{l} 320 - 80 = \text{grid} \\ 200 + (120 - 80) = \text{grid} \end{array}$$

$$\begin{array}{r} 759 \\ - 262 \\ \hline \end{array}$$
$$\begin{array}{l} 320 - 90 = \text{grid} \\ 200 + (120 - 90) = \text{grid} \end{array}$$

$$\begin{array}{r} 839 \\ - 567 \\ \hline \end{array}$$
$$\begin{array}{l} 350 - 60 = \text{grid} \\ 200 + (150 - 60) = \text{grid} \end{array}$$

$$\begin{array}{r} 703 \\ - 533 \\ \hline \end{array}$$
$$\begin{array}{l} 370 - 60 = \text{grid} \\ 300 + (70 - 60) = \text{grid} \end{array}$$

$$\begin{array}{r} 674 \\ - 381 \\ \hline \end{array}$$
$$\begin{array}{l} 400 - 90 = \text{grid} \\ 300 + (100 - 90) = \text{grid} \end{array}$$

$$\begin{array}{r} 668 \\ - 488 \\ \hline \end{array}$$
$$\begin{array}{l} 450 - 40 = \text{grid} \\ 400 + (50 - 40) = \text{grid} \end{array}$$

$$\begin{array}{r} 549 \\ - 283 \\ \hline \end{array}$$
$$\begin{array}{l} 450 - 60 = \text{grid} \\ 300 + (150 - 60) = \text{grid} \end{array}$$

$$\begin{array}{r} 761 \\ - 370 \\ \hline \end{array}$$
$$\begin{array}{l} 450 - 80 = \text{grid} \\ 300 + (150 - 80) = \text{grid} \end{array}$$

SUBTRACTION: CHANGING HUNDREDS

This page is for study only. Study the panels below as you look at the examples on page 58.

A

Mr. Smith had
325 big lollipops.
He sold 143 of them.
How many lollipops
did he have left?

Here is one way to find how many lollipops were left:

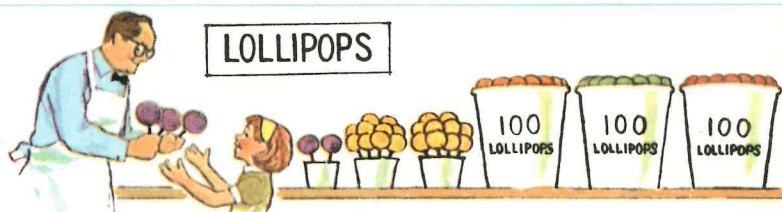
$$\begin{array}{r} 325 = 300 + 20 + 5 = 200 + 120 + 5 \\ -143 = 100 + 40 + 3 = 100 + 40 + 3 \\ \hline 100 + 80 + 2 = 182 \end{array}$$

B

A shorter way:

$$\begin{array}{r} \text{Step 1} \\ 325 \\ -143 \\ \hline 2 \end{array}$$

ONES: $5 - 3 = 2$
Write 2 in ONES place.



C

Step 2

$$\begin{array}{r} 212 \\ 325 \\ -143 \\ \hline 82 \end{array}$$

TENS: We cannot subtract 4 from 2.
Change 1 HUNDRED to 10 TENS.
Now we have 12 TENS. $12 - 4 = 8$
Write 8 in TENS place.

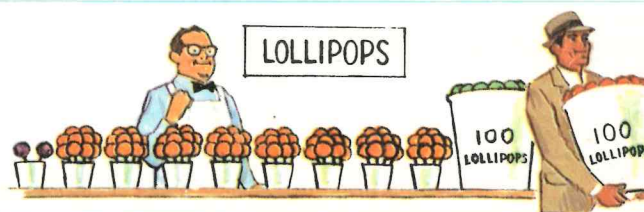


D

Step 3

$$\begin{array}{r} 212 \\ 325 \\ -143 \\ \hline 182 \end{array}$$

HUNDREDS: There are
2 HUNDREDS left.
 $2 - 1 = 1$
Write 1 in HUNDREDS place.
Mr. Smith had 182 lollipops left.



Find the missing remainder

E

$$340 - 70 = \text{[grid]}$$

$$200 + (140 - 70) = \text{[grid]}$$

Step 1 We cannot subtract 7 TENS from 4 TENS, so we change 1 HUNDRED to 10 TENS. Now we have 14 TENS.

Step 2 Think: $(140 - 70) = 70$

Then think: $200 + 70 = 270$, so $200 + (140 - 70) = 270$

SUBTRACTION: CHANGING TWICE

A

This year there are 735 Cub Scouts. Next year 357 of them will become Boy Scouts. Of the 735 Cub Scouts, how many will be left? (See Panel B.)



B

$$\begin{array}{r} 12 \\ 6 \cancel{7} 15 \\ - 357 \\ \hline 378 \end{array}$$

ONES: Change 1 TEN to 10 ONES.

Now we have 15 ONES. $15 - 7 = 8$

TENS: We have 2 TENS left. Change 1 HUNDRED to 10 TENS.

Now we have 12 TENS. $12 - 5 = 7$

HUNDREDS: We have 6 HUNDREDS left. $6 - 3 = 3$

C



$$\begin{array}{r} 910 \\ - 438 \\ \hline 472 \end{array}$$

ONES: There are no ONES. Change 1 TEN to 10 ONES.

Now we have 10 ONES. $10 - 8 = 2$

TENS: Now there are no TENS. Change 1 HUNDRED to 10 TENS.

Now we have 10 TENS. $10 - 3 = 7$

HUNDREDS: We have 8 HUNDREDS left. $8 - 4 = 4$

NOTE: Remember the TENS and HUNDREDS we changed.

D



$$\begin{array}{r} 423 \\ - 346 \\ \hline 77 \end{array}$$

ONES: Change 1 TEN to 10 ONES. Now we have 13 ONES. $13 - 6 = 7$

TENS: We have 1 TEN left. Change 1 HUNDRED to 10 TENS.

Now we have 11 TENS. $11 - 4 = 7$

HUNDREDS: We have 3 HUNDREDS left. $3 - 3 = 0$

We need not write the 0 in HUNDREDS place.

Find the missing remainder

E

$$547 - 9 = \boxed{}$$

$$530 + (17 - 9) = \boxed{}$$

Step 1 Change 1 TEN to 10 ONES. Now we have 17 ONES. We can take the 9 from the 17.

Step 2 **Think:** $(17 - 9) = 8$ There are 3 TENS left and 5 HUNDREDS. $530 + 8 = 538$, so $530 + (17 - 9) = 538$

This page is for study only. Study the panels above as you look at the examples on page 61.

SUBTRACT:

$$\begin{array}{r} 716 \\ \underline{549} \end{array}$$

$$\begin{array}{l} \blacktriangle 110 - 4 = \square \\ 100 + (10 - 4) = \square \end{array}$$

$$\begin{array}{r} 710 \\ \underline{663} \end{array}$$

$$\begin{array}{l} \blacktriangle 242 - 5 = \square \\ 230 + (12 - 5) = \square \end{array}$$

$$\begin{array}{r} 833 \\ \underline{699} \end{array}$$

$$\begin{array}{l} \blacktriangle 170 - 2 = \square \\ 160 + (10 - 2) = \square \end{array}$$

$$\begin{array}{r} 665 \\ \underline{259} \end{array}$$

$$\begin{array}{l} \blacktriangle 311 - 9 = \square \\ 300 + (11 - 9) = \square \end{array}$$

$$\begin{array}{r} 513 \\ \underline{157} \end{array}$$

$$\begin{array}{l} \blacktriangle 321 - 8 = \square \\ 310 + (11 - 8) = \square \end{array}$$

$$\begin{array}{r} 390 \\ \underline{388} \end{array}$$

$$\begin{array}{l} \blacktriangle 234 - 6 = \square \\ 220 + (14 - 6) = \square \end{array}$$

$$\begin{array}{r} 926 \\ \underline{787} \end{array}$$

$$\begin{array}{l} \blacktriangle 186 - 7 = \square \\ 170 + (16 - 7) = \square \end{array}$$

$$\begin{array}{r} 718 \\ \underline{499} \end{array}$$

$$\begin{array}{l} \blacktriangle 268 - 9 = \square \\ 250 + (18 - 9) = \square \end{array}$$

$$\begin{array}{r} 742 \\ \underline{354} \end{array}$$

$$\begin{array}{l} \blacktriangle 431 - 5 = \square \\ 420 + (11 - 5) = \square \end{array}$$

$$\begin{array}{r} 820 \\ \underline{592} \end{array}$$

$$\begin{array}{l} \blacktriangle 333 - 7 = \square \\ 320 + (13 - 7) = \square \end{array}$$

$$\begin{array}{r} 522 \\ \underline{277} \end{array}$$

$$\begin{array}{l} \blacktriangle 373 - 8 = \square \\ 360 + (13 - 8) = \square \end{array}$$

$$\begin{array}{r} 947 \\ \underline{647} \end{array}$$

$$\begin{array}{l} \blacktriangle 492 - 4 = \square \\ 480 + (12 - 4) = \square \end{array}$$

$$\begin{array}{r} 854 \\ \underline{369} \end{array}$$

$$\begin{array}{l} \blacktriangle 556 - 8 = \square \\ 540 + (16 - 8) = \square \end{array}$$

$$\begin{array}{r} 910 \\ \underline{707} \end{array}$$

$$\begin{array}{l} \blacktriangle 415 - 9 = \square \\ 400 + (15 - 9) = \square \end{array}$$

$$\begin{array}{r} 921 \\ \underline{255} \end{array}$$

$$\begin{array}{l} \blacktriangle 631 - 6 = \square \\ 620 + (11 - 6) = \square \end{array}$$

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 63. See if your answers are the same as the red numerals in the windows.

SUBTRACTION ZERO DIFFICULTIES WITH CHANGING

\$3.80
\$.04

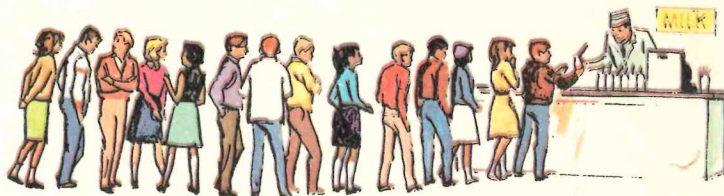
\$5.00
\$.76

\$4.99
\$.78

A

The man had 303 bottles of milk.
He sold 44 of them to Bob's
class. How many bottles of
milk did he have left?

(See Panels B and C.)



\$4.09
\$.69

\$1.10
\$.93

\$1.77
\$.23

B

Step 1

$$\begin{array}{r} 303 \\ -44 \\ \hline \end{array}$$

We cannot subtract 4 ONES from 3 ONES,
and we have no TENS to change.
So we change 1 HUNDRED to 10 TENS.
Now we have 2 HUNDREDS and 10 TENS.
We can change 1 of the TENS to 10 ONES.

\$0.05
\$2.12

\$0.06
\$3.95

\$1.06
\$2.60

C

Step 2

$$\begin{array}{r} 303 \\ -44 \\ \hline 259 \end{array}$$

Now we are ready to subtract:
ONES: $13 - 4 = 9$
TENS: We have 9 TENS left. $9 - 4 = 5$
HUNDREDS: We have 2 HUNDREDS left. $2 - 0 = 2$
The man had 259 bottles of milk left.

\$5.55
\$7.67

\$1.09
\$5.40

\$5.01
\$4.50

D



$$\begin{array}{r} 500 \\ -477 \\ \hline 23 \end{array}$$

There are no ONES and no TENS. First change 1 HUNDRED to 10 TENS;
then change 1 of the TENS to 10 ONES. Now subtract.
ONES: $10 - 7 = 3$ TENS: There are 9 TENS left. $9 - 7 = 2$
HUNDREDS: There are 4 HUNDREDS left. $4 - 4 = 0$
We need not write 0 in HUNDREDS place.

\$7.00
\$7.90

\$1.93
\$.57

\$0.09
\$3.90

E

Find the missing remainder

$$403 - 8 = \boxed{}$$

$$390 + (13 - 8) = \boxed{}$$

Step 1 First change 1 HUNDRED to 10 TENS; then change
1 of the TENS to 10 ONES. Now we have 13 ONES.

Step 2 Think: $(13 - 8) = 5$ There are 9 TENS left and
3 HUNDREDS. $390 + 5 = 395$, so $390 + (13 - 8) = 395$

This page is for study only. Study the panels above as you look at the examples on page 63.
DO NOT write through the windows on this page.

SUBTRACT:

$$\begin{array}{r} 70 \\ 40 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 240 - 80 = \square \\ 100 + (140 - 80) = \square \end{array}$$
167
106
$$\begin{array}{r} 75 \\ 45 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 204 - 8 = \square \\ 190 + (14 - 8) = \square \end{array}$$
47
237
$$\begin{array}{r} 175 \\ 40 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 240 - 8 = \square \\ 230 + (10 - 8) = \square \end{array}$$
134
168
$$\begin{array}{r} 175 \\ 45 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 402 - 3 = \square \\ 390 + (12 - 3) = \square \end{array}$$
406
302
$$\begin{array}{r} 175 \\ 75 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 420 - 3 = \square \\ 410 + (10 - 3) = \square \end{array}$$
356
313
$$\begin{array}{r} 175 \\ 95 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 420 - 30 = \square \\ 300 + (120 - 30) = \square \end{array}$$
2
228
$$\begin{array}{r} 175 \\ 69 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 310 - 4 = \square \\ 300 + (10 - 4) = \square \end{array}$$
139
179
$$\begin{array}{r} 170 \\ 46 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 301 - 4 = \square \\ 290 + (11 - 4) = \square \end{array}$$
219
259
$$\begin{array}{r} 102 \\ 46 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 310 - 40 = \square \\ 200 + (110 - 40) = \square \end{array}$$
388
426
$$\begin{array}{r} 104 \\ 55 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 203 - 5 = \square \\ 190 + (13 - 5) = \square \end{array}$$
228
326
$$\begin{array}{r} 846 \\ 39 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 560 - 2 = \square \\ 550 + (10 - 2) = \square \end{array}$$
245
365
$$\begin{array}{r} 404 \\ 55 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 440 - 70 = \square \\ 300 + (140 - 70) = \square \end{array}$$
300
488
$$\begin{array}{r} 504 \\ 55 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 490 - 60 = \square \\ 400 + (90 - 60) = \square \end{array}$$
485
548
$$\begin{array}{r} 505 \\ 55 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 340 - 50 = \square \\ 200 + (140 - 50) = \square \end{array}$$
203
406
$$\begin{array}{r} 155 \\ 46 \\ \hline \end{array}$$
$$\begin{array}{r} \blacktriangle \\ 701 - 2 = \square \\ 690 + (11 - 2) = \square \end{array}$$
666
625

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 65. See if your answers are the same as the blue numerals in the windows.

NOTE: Pay no attention to the red numerals outside the boxes.

SUBTRACT:

<div> <div>\$6.05 2.25</div> <div>\$70 8</div> <div>▲</div> <div>8¢ - 4¢ = <input type="text"/></div> </div>	<div> <div>\$7.05 2.05</div> <div>500 80</div> <div>▲</div> <div>80¢ - 4¢ = <input type="text"/> 70¢ + (10¢ - 4¢) = <input type="text"/></div> </div>	<div> <div>\$7.05 2.06</div> <div>570 800</div> <div>▲</div> <div>82¢ - 4¢ = <input type="text"/> 70¢ + (12¢ - 4¢) = <input type="text"/></div> </div>
<div> <div>\$7.05 2.96</div> <div>459 50</div> <div>▲</div> <div>73¢ - 4¢ = <input type="text"/> 60¢ + (13¢ - 4¢) = <input type="text"/></div> </div>	<div> <div>\$7.05 6.95</div> <div>\$8.69 500</div> <div>▲</div> <div>\$1.00 - 7¢ = <input type="text"/> 90¢ + (10¢ - 7¢) = <input type="text"/></div> </div>	<div> <div>\$3.67 2.90</div> <div>268 5000</div> <div>▲</div> <div>\$3.10 - 80¢ = <input type="text"/> \$2.00 + (\$1.10 - 80¢) = <input type="text"/></div> </div>
<div> <div>\$1.04 .99</div> <div>2463 20</div> <div>▲</div> <div>\$2.21 - 9¢ = <input type="text"/> \$2.10 + (11¢ - 9¢) = <input type="text"/></div> </div>	<div> <div>\$2.05 1.99</div> <div>89 200</div> <div>▲</div> <div>\$4.02 - 7¢ = <input type="text"/> \$3.90 + (12¢ - 7¢) = <input type="text"/></div> </div>	<div> <div>\$2.05 .99</div> <div>797 3200</div> <div>▲</div> <div>\$2.90 - \$.30 = <input type="text"/> \$2.00 + (\$.90 - \$.30) = <input type="text"/></div> </div>
<div> <div>\$7.05 1.50</div> <div>\$36.92 80</div> <div>▲</div> <div>\$7.70 - \$.03 = <input type="text"/> \$7.60 + (\$.10 - \$.03) = <input type="text"/></div> </div>	<div> <div>\$6.98 5.89</div> <div>\$4.49 800</div> <div>▲</div> <div>\$6.20 - 80¢ = <input type="text"/> \$5.00 + (\$1.20 - 80¢) = <input type="text"/></div> </div>	<div> <div>\$6.00 .99</div> <div>582 980</div> <div>▲</div> <div>\$5.10 - \$.60 = <input type="text"/> \$4.00 + (\$1.10 - \$.60) = <input type="text"/></div> </div>
<div> <div>\$7.77 .77</div> <div>\$3.56 60</div> <div>▲</div> <div>\$8.70 - 80¢ = <input type="text"/> \$7.00 + (\$1.70 - 80¢) = <input type="text"/></div> </div>	<div> <div>\$7.00 5.07</div> <div>2789 600</div> <div>▲</div> <div>62¢ - 5¢ = <input type="text"/> 50¢ + (12¢ - 5¢) = <input type="text"/></div> </div>	<div> <div>\$7.07 6.98</div> <div>6987 1050</div> <div>▲</div> <div>\$4.60 - \$.70 = <input type="text"/> \$3.00 + (\$1.60 - \$.70) = <input type="text"/></div> </div>

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

3 — To check your work, put your paper or Magic Slate under page 62. See if your answers are the same as the red numerals in the windows.

NOTE: Pay no attention to the blue numerals outside the boxes.

SUBTRACTING DOLLARS AND CENTS

$$\begin{array}{r} 30 \\ 160 \end{array}$$

$$\begin{array}{r} 30 \\ 196 \end{array}$$

$$\begin{array}{r} 135 \\ 232 \end{array}$$

A

We subtract numerals with dollars and cents the way we subtract other numerals.

$$\begin{array}{r} \$7.47 \\ -4.52 \\ \hline \$2.95 \end{array}$$

Remember to put the dollar sign and the point in the answer. Be sure they go right under the dollar sign and the points in the example.

$$\begin{array}{r} 130 \\ 399 \end{array}$$

$$\begin{array}{r} 100 \\ 417 \end{array}$$

$$\begin{array}{r} 80 \\ 390 \end{array}$$

B

Tessie had \$1.28. She spent \$.79 for mittens. How much money did she have left?

$$\begin{array}{r} \$1.28 \\ - .79 \\ \hline \$.49 \end{array}$$

CENTS: Change 1 DIME to 10 CENTS. $18 - 9 = 9$
DIMES: There is 1 DIME left. Change 1 DOLLAR to 10 DIMES. $11 - 7 = 4$
DOLLARS: There are no DOLLARS left. Don't forget the \$ and • in the remainder.

$$\begin{array}{r} 106 \\ 306 \end{array}$$

$$\begin{array}{r} 124 \\ 297 \end{array}$$

$$\begin{array}{r} 56 \\ 270 \end{array}$$

C



$$\begin{array}{r} \$6.18 \\ -2.88 \\ \hline \$3.30 \end{array}$$

Do you remember that when we subtract a number from itself, the remainder is zero?



$$\begin{array}{r} \$3.18 \\ -2.09 \\ \hline \$1.09 \end{array}$$

Do you remember that when we subtract zero from zero, the remainder is zero?

D

$$\begin{array}{r} 49 \\ 198 \end{array}$$

$$\begin{array}{r} 807 \\ 558 \end{array}$$

$$\begin{array}{r} 349 \\ 370 \end{array}$$

E



$$\begin{array}{r} \$3.53 \\ -1.07 \\ \hline \$2.46 \end{array}$$

Do you remember that when we subtract zero from a number, the remainder is that number?



$$\begin{array}{r} \$2.87 \\ -2.49 \\ \hline \$.38 \end{array}$$

Do you remember that we need not write the last zero in the remainder?

F

$$\begin{array}{r} 449 \\ 430 \end{array}$$

$$\begin{array}{r} 450 \\ 290 \end{array}$$

$$\begin{array}{r} 109 \\ 699 \end{array}$$

G

Find the missing remainder

$$\$8.02 - \$0.07 = \boxed{}$$

$$\$7.90 + (\$0.12 - \$0.07) = \boxed{}$$

Step 1 First change 1 DOLLAR to 10 DIMES; then change 1 of the DIMES to 10 CENTS. Now we have 12 CENTS. Step 2 Think: $12\text{¢} - 7\text{¢} = 5\text{¢}$ There are 9 DIMES left and 7 DOLLARS.

$$\$7.90 + 5\text{¢} = \$7.95; \text{ so } \$7.90 + (\$0.12 - \$0.07) = \$7.95$$

SUBTRACT:

$$\begin{array}{r} \$1.42 \\ -.72 \\ \hline \end{array}$$

$17 - 9 = \boxed{}$

$$\begin{array}{r} 1300 \\ -800 \\ \hline \end{array}$$

$170 - 90 = \boxed{}$

$$\begin{array}{r} 1442 \\ -872 \\ \hline \end{array}$$

$1700 - 900 = \boxed{}$

$$\begin{array}{r} 921 \\ -462 \\ \hline \end{array}$$

$80 - 30 = \boxed{}$

$$\begin{array}{r} \$15.70 \\ -7.01 \\ \hline \end{array}$$

$800 - 300 = \boxed{}$

$$\begin{array}{r} 656 \\ -388 \\ \hline \end{array}$$

$8000 - 3000 = \boxed{}$

$$\begin{array}{r} 3409 \\ -946 \\ \hline \end{array}$$

$90 - 70 = \boxed{}$

$$\begin{array}{r} 527 \\ -438 \\ \hline \end{array}$$

$900 - 700 = \boxed{}$

$$\begin{array}{r} 1490 \\ -693 \\ \hline \end{array}$$

$3900 - 700 = \boxed{}$

$$\begin{array}{r} \$37.00 \\ -.08 \\ \hline \end{array}$$

$100 - 20 = \boxed{}$

$$\begin{array}{r} \$2.36 \\ -1.87 \\ \hline \end{array}$$

$1000 - 200 = \boxed{}$

$$\begin{array}{r} 1341 \\ -759 \\ \hline \end{array}$$

$1000 - 20 = \boxed{}$

$$\begin{array}{r} \$12.52 \\ -8.96 \\ \hline \end{array}$$

$110 - 50 = \boxed{}$

$$\begin{array}{r} 3233 \\ -444 \\ \hline \end{array}$$

$1100 - 500 = \boxed{}$

$$\begin{array}{r} 7776 \\ -789 \\ \hline \end{array}$$

$1100 - 50 = \boxed{}$

DIRECTIONS: 1 — Study the examples on this page. The blue numerals in the windows are the right answers.

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3 — To check your work, put your paper or Magic Slate under page 64. See if your answers are the same as the blue numerals in the windows.

FOUR-DIGIT MINUENDS

Put your finger over the zeros. What do you see? Now look at Panel A on page 54.

A

$\begin{array}{r} 11 \\ -6 \\ \hline 5 \end{array}$	$\begin{array}{r} 21 \\ -6 \\ \hline 15 \end{array}$	$\begin{array}{r} 31 \\ -6 \\ \hline 25 \end{array}$	$\begin{array}{r} 110 \\ -60 \\ \hline 50 \end{array}$	$\begin{array}{r} 210 \\ -60 \\ \hline 150 \end{array}$	$\begin{array}{r} 310 \\ -60 \\ \hline 250 \end{array}$	$\begin{array}{r} 1100 \\ -600 \\ \hline 500 \end{array}$	$\begin{array}{r} 2100 \\ -600 \\ \hline 1500 \end{array}$	$\begin{array}{r} 18 \\ -9 \\ \hline 9 \end{array}$	$\begin{array}{r} 180 \\ -90 \\ \hline 90 \end{array}$	$\begin{array}{r} 280 \\ -90 \\ \hline 190 \end{array}$	$\begin{array}{r} 380 \\ -90 \\ \hline 290 \end{array}$	$\begin{array}{r} 1800 \\ -900 \\ \hline 900 \end{array}$	$\begin{array}{r} 2800 \\ -900 \\ \hline 1900 \end{array}$	$\begin{array}{r} 3800 \\ -900 \\ \hline 2900 \end{array}$
---	--	--	--	---	---	---	--	---	--	---	---	---	--	--

We subtract THOUSANDS the same way we subtract HUNDREDS, TENS, and ONES.

Find the missing remainders

B

$$9000 - 4000 = \boxed{5000}$$

We know $9 - 4 = 5$, so
 $90 - 40 = 50$, $900 - 400 = 500$,
 and $9000 - 4000 = 5000$

$$4300 - 600 = \boxed{3700}$$

We know $13 - 6 = 7$, so
 $43 - 6 = 37$, $430 - 60 = 370$,
 and $4300 - 600 = 3700$

C

Two
changes
needed

$$\begin{array}{r} 2240 \\ -607 \\ \hline 1633 \end{array}$$

ONES: Change 1 TEN to 10 ONES. $10 - 7 = 3$
 TENS: There are 3 TENS left. (Remember, we changed 1 TEN) $3 - 0 = 3$
 HUNDREDS: We cannot subtract 6 HUNDREDS from 2 HUNDREDS. Change 1 THOUSAND to 10 HUNDREDS. Now we have 12 HUNDREDS. $12 - 6 = 6$
 THOUSANDS: There is 1 THOUSAND left. $1 - 0 = 1$

D

Three
changes
needed

$$\begin{array}{r} 1000 \\ -836 \\ \hline 164 \end{array}$$

There are no TENS or HUNDREDS to change. Change 1 THOUSAND to 10 HUNDREDS and change 1 of the HUNDREDS to 10 TENS. Then change 1 of the TENS to 10 ONES. Now we are ready to subtract.
 ONES: $10 - 6 = 4$ TENS: $9 - 3 = 6$ HUNDREDS: $9 - 8 = 1$
 THOUSANDS: There are no THOUSANDS left. We need not write in the 0.

This one is tricky!

$$2000 - 30 = \boxed{1970}$$

E

Think: What is $200 - 3$? Change 1 HUNDRED to 10 TENS, and change 1 of the TENS to 10 ONES. $10 \text{ ONES} - 3 \text{ ONES} = 7 \text{ ONES}$
 There are 9 TENS left and 1 HUNDRED. $190 + 7 = 197$
 Answer: $200 - 3 = 197$, so $2000 - 30 = 1970$

GENERAL REVIEW

This page is for study only. Study the panels below as you look at the examples on page 69.

A

Nathan, Carol, and their father and mother lived in Chicago. For 4 years they took a vacation trip each summer.



B

1st trip—Chicago to Seattle to San Francisco, then home.

4928 miles.



2nd trip—Chicago to Toronto, Canada. A few sides trips, then home.

1597 miles.

C

How much farther did they travel on the first trip than on the second?

$$\begin{array}{r} 4928 \text{ mi.} \\ -1597 \text{ mi.} \\ \hline 3331 \text{ mi.} \end{array}$$

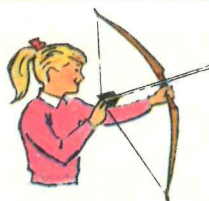
The third and fourth trips were local vacations. How many miles did they travel in all 4 trips?

$$\begin{array}{r} \text{1st trip: } 4928 \text{ mi.} \\ \text{2nd trip: } 1597 \text{ mi.} \\ \text{3rd trip: } 939 \text{ mi.} \\ \text{4th trip: } 708 \text{ mi.} \\ \hline \text{Total: } 8172 \text{ mi.} \end{array}$$

D

E

Carol had \$10.05 when they were in Montana. She bought a bow and some arrows for \$8.98. How much money did she have left?



$$\begin{array}{r} \$10.05 \\ -8.98 \\ \hline \$ 1.07 \end{array}$$

F

In Toronto, Father and Mother bought Nathan a fishing rod for \$11.90, a float for 8¢, and a tackle box for \$2.65. How much money did they spend?



$$\begin{array}{r} \$11.90 \\ .08 \\ 2.65 \\ \hline \$14.63 \end{array}$$

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

$$\begin{array}{r} 719 \\ 59 \\ 587 \\ \underline{332} \end{array}$$

▲ $800 + 700 = \boxed{}$

$$\begin{array}{r} 1342 \\ \underline{-687} \end{array}$$

▲ $\$1.30 - \boxed{} = 90\text{¢}$

$$\begin{array}{r} 78 \\ 86 \\ 99 \\ \underline{72} \end{array}$$

▲ $6 + 8 + \boxed{} + 9 = 31$

$$\begin{array}{r} \$9.20 \\ \underline{-5.22} \end{array}$$

▲ $\$4.30 - \$0.80 = \boxed{}$

$$\begin{array}{r} 289 \\ 410 \\ 985 \\ \underline{835} \end{array}$$

▲ $(7+5) + (90+20) = \boxed{}$

$$\begin{array}{r} 1555 \\ \underline{-777} \end{array}$$

▲ $4372 = 4002 + \boxed{}$

$$\begin{array}{r} 7254 \\ \underline{-698} \end{array}$$

▲ $412 - 6 = \boxed{}$

$$\begin{array}{r} 4800 \\ \underline{+3029} \end{array}$$

▲ $2600 - 800 = \boxed{}$

$$\begin{array}{r} 458 \\ 65 \\ 347 \\ \underline{771} \end{array}$$

▲ $69\text{¢} + 91\text{¢} = \boxed{}$

$$\begin{array}{r} 6721 \\ \underline{-832} \end{array}$$

▲ $\$6.04 - \boxed{} = \5.99

$$\begin{array}{r} \$16.89 \\ \underline{+33.94} \end{array}$$

▲ $(80+80) + (9+4) = \boxed{}$

$$\begin{array}{r} 1332 \\ \underline{-849} \end{array}$$

▲ $303 - 5 = \boxed{}$

$$\begin{array}{r} 899 \\ 788 \\ 256 \\ \underline{153} \end{array}$$

▲ $1300 - \boxed{} = 600$

$$\begin{array}{r} 572 \\ \underline{-281} \end{array}$$

▲ $\$1.90 + \boxed{} = \2.20

$$\begin{array}{r} 150 \\ 567 \\ 4865 \\ \underline{3243} \end{array}$$

▲ $\boxed{} - 600 = 300$

3 — To check your work, put your paper or Magic Slate under page 71. See if your answers are the same as the red numerals in the windows.

SHORT CUTS IN ADDITION

A

$$\begin{array}{r} \text{(d)(c)(b)(a)} \\ 6 \ 4 \ 9 \ 5 \\ + 7 \ 6 \ 8 \\ \hline 6 \ 3 \end{array}$$

Work this example the usual way.

(a) ONES: $5 + 8 = 13$ Write 3 in ONES place and carry 1 TEN.(b) TENS: 1 (remembered) $+ 9 = 10$; $10 + 6 = 16$

Write 6 in TENS place and remember to carry 1 HUNDRED.

$$\begin{array}{r} \$7.42 \\ 2800 \end{array}$$

$$\begin{array}{r} 2337 \\ 9 \end{array}$$

$$\begin{array}{r} 2878 \\ 900 \end{array}$$

B

$$\begin{array}{r} \text{(d)(c)(b)(a)} \\ 6 \ 4 \ 9 \ 5 \\ + 7 \ 6 \ 8 \\ \hline 7 \ 2 \ 6 \ 3 \end{array}$$

(c) HUNDREDS: 1 (remembered) $+ 4 = 5$; $5 + 7 = 12$

Write 2 in HUNDREDS place and carry 1 THOUSAND.

(d) THOUSANDS: 1 (remembered) $+ 6 = 7$ Write 7 in THOUSANDS place.

The sum: Seven thousand, two hundred, sixty-three.

$$\begin{array}{r} \$2.20 \\ 6 \end{array}$$

$$\begin{array}{r} 8969 \\ 129 \end{array}$$

$$\begin{array}{r} 6110 \\ 90 \end{array}$$

Short cut

C

$$\begin{array}{r} \text{(d)(c)(b)(a)} \\ 5 \ 8 \ 4 \ 7 \\ + 2 \ 2 \ 0 \ 6 \\ \hline 8 \ 0 \ 5 \ 3 \end{array}$$

We know which digits mean ONES, TENS, HUNDREDS, and THOUSANDS, so let's add by saying:

(a) $7 + 6 = 13$ Write 3 and carry 1.(b) $1 + 4 = 5$; $5 + 0 = 5$ Write 5.(c) $8 + 2 = 10$ Write 0 and carry 1.(d) $1 + 5 = 6$; $6 + 2 = 8$ Write 8.

The sum: Eight thousand, fifty-three.

$$\begin{array}{r} 201 \\ \$00 \end{array}$$

$$\begin{array}{r} 778 \\ 150 \end{array}$$

$$\begin{array}{r} \$39.56 \\ 6005 \end{array}$$

Short cut

D

$$\begin{array}{r} \text{(d)(c)(b)(a)} \\ 8 \ 7 \ 9 \\ 3 \ 6 \ 8 \ 5 \\ 4 \ 7 \ 2 \ 6 \\ \hline 9 \ 2 \ 9 \ 0 \end{array}$$

(a) $9 + 5 = 14$; $14 + 6 = 20$ Write 0 and carry 2.(b) $2 + 7 = 9$; $9 + 8 = 17$; $17 + 2 = 19$ Write 9 and carry 1.(c) $1 + 8 = 9$; $9 + 6 = 15$; $15 + 7 = 22$ Write 2 and carry 2.(d) $2 + 3 = 5$; $5 + 4 = 9$ Write 9.

The sum: Nine thousand, two hundred, ninety.

$$\begin{array}{r} 729 \\ 4 \end{array}$$

$$\begin{array}{r} 8496 \\ \$90 \end{array}$$

$$\begin{array}{r} 959 \\ 0 \end{array}$$

Short cut

E

$$\begin{array}{r} \text{(d)(c)(b)(a)} \\ 1 \ 2 \ 9 \ 4 \\ 3 \ 8 \ 7 \\ 8 \ 1 \ 6 \ 5 \\ \hline 9 \ 8 \ 4 \ 6 \end{array}$$

(a) $4 + 7 = 11$; $11 + 5 = 16$ Write 6 and carry 1.(b) $1 + 9 = 10$; $10 + 8 = 18$; $18 + 6 = 24$ Write 4 and carry 2.(c) $2 + 2 = 4$; $4 + 3 = 7$; $7 + 1 = 8$ Write 8.(d) $1 + 8 = 9$ Write 9.

The sum: Nine thousand, eight hundred, forty-six.

$$\begin{array}{r} 1875 \\ \$3.30 \end{array}$$

$$\begin{array}{r} \$49.98 \\ 7000 \end{array}$$

$$\begin{array}{r} 2347 \\ \$46 \end{array}$$

HELPFUL HINTS

A

Sometimes you get the wrong answer even though you know how to work the example. This happens because you make careless mistakes. Here are some hints to keep you from making mistakes:



1697
1500

655
\$.40

335
8

B



Read directions carefully. Do exactly what they tell you to do.
Follow the signs: **Add** when you see a **plus** sign.
Subtract when you see a **minus** sign.



\$3.98
\$3.50

2519
122

778
370

C

Do you know how to check addition examples? First add down. Then add up. See if you get the same sum.

8
4
5
7
—
24

Add down: $8 + 4 = 12$; $12 + 5 = 17$; $17 + 7 = 24$
Add up: $7 + 5 = 12$; $12 + 4 = 16$; $16 + 8 = 24$
24 must be the right answer.

6556
406

7829
1800

1641
\$1.60

D

Do you know how to check subtraction examples? Do the subtraction. Then add your remainder to the numeral you took away.

4207 3239
-968 +968
— —
3239 4207

If these two numerals are the same, you can be quite sure you have the right remainder.

5889
\$.05

\$50.83
173

483
298

E

If there is a dollar sign and a point in the example you must put a dollar sign and a point in the answer.

\$90.04
-7.66
—
\$82.38

Ruth bought a ruler for 20¢, a notebook for 32¢, a pen for 46¢, and a book for 94¢. How much money did she spend? Add; then use the \$ and the •

20¢
32¢
46¢
94¢
—
\$1.92

F

2096
700

291
\$.30

8825
900

DIRECTIONS: 1 — Study the examples on this page. The red numerals in the windows are the right answers.

2 — Put a piece of paper or a Magic Slate under this page. For the examples above the windows, write your answers through the windows straight under the examples. For the examples below the windows, write your answers where the arrows point.

$$\begin{array}{r} \$16.38 \\ -8.96 \\ \hline \end{array}$$

▲ $3500 - 700 = \boxed{}$

$$\begin{array}{r} 879 \\ 504 \\ 252 \\ 702 \\ \hline \end{array}$$

▲ $9 + \boxed{} + 9 = (19 + 8)$

$$\begin{array}{r} 3445 \\ -567 \\ \hline \end{array}$$

▲ $\boxed{} + 500 = 1400$

$$\begin{array}{r} 17¢ \\ 79¢ \\ 85¢ \\ 39¢ \\ \hline \end{array}$$

▲ $544 - \boxed{} = 538$

$$\begin{array}{r} 9900 \\ -931 \\ \hline \end{array}$$

▲ $120 + (15 - 6) = \boxed{}$

$$\begin{array}{r} 4329 \\ 647 \\ 1134 \\ \hline \end{array}$$

▲ $(\boxed{} + 30) + 15 = 135$

$$\begin{array}{r} 89 \\ 92 \\ 6 \\ 14 \\ \hline \end{array}$$

▲ $81¢ - \boxed{} = \0.81

$$\begin{array}{r} 1746 \\ -968 \\ \hline \end{array}$$

▲ $(70 + 10) + 70 = \boxed{}$

$$\begin{array}{r} \$43.94 \\ -4.38 \\ \hline \end{array}$$

▲ $6105 = \boxed{} + 100$

$$\begin{array}{r} 1002 \\ -273 \\ \hline \end{array}$$

▲ $\boxed{} + 4 + 7 + 9 = 24$

$$\begin{array}{r} 599 \\ 2899 \\ 999 \\ 3999 \\ \hline \end{array}$$

▲ $\$1.80 - \boxed{} = 90¢$

$$\begin{array}{r} 1306 \\ -347 \\ \hline \end{array}$$

▲ $(80 + \boxed{}) + 40 = 120$

$$\begin{array}{r} 869 \\ 778 \\ 228 \\ \hline \end{array}$$

▲ $\$2.70 + 60¢ = \boxed{}$

$$\begin{array}{r} \$58.97 \\ -8.99 \\ \hline \end{array}$$

▲ $9000 - 2000 = \boxed{}$

$$\begin{array}{r} 459 \\ 876 \\ 348 \\ 664 \\ \hline \end{array}$$

▲ $55¢ - 9¢ = \boxed{}$

3 — To check your work, put your paper or Magic Slate under page 70. See if your answers are the same as the red numerals in the windows.

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